ROW NO.	PAM ID NUMBER	PARTNER NAME	TITLE/PURPOSE	SIGNATURE DATE	EXPIRATION DATE	TYPE OF AGREEMENT	TOTAL ESTIMATED CUMULATIVE DOLLAR VALUE FOR AGREEMENT	CENTER TRACKING NUMBER (IF ANY)
	1 35005	Unmanned Experts Inc	Annex to Advanced Air Mobility Technology Research Demonsstration Activities - Airspace	7/6/2021	7/6/2026	Non-Reimbursable	\$678,932 AFRC	
	2 35004	Unmanned Experts Inc	Advanced Air Mobility Technology Research Demonsstration Activities	7/8/2021	7/8/2026	Non-Reimbursable	\$0 AFRC	
	3 35003	Joby Aviation, Inc	Annex to Participation in the NASA UAM Grand Challenge	7/8/2021	7/8/2026	Non-Reimbursable	\$592,104 AFRC	
	4 35001	Raytheon Company	Annex to Advanced Air Mobility Technology Research and Demonstration Activities - Infrastructure	7/6/2021	7/6/2026	Non-Reimbursable	\$678,932 AFRC	
	5 35000	Raytheon Company	Annex to Advanced Air Mobility Technology Research and Demonstration Activities - Infrastructure	7/6/2021	7/6/2026	Non-Reimbursable	\$678,932 AFRC	

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	6 34999	Raytheon Company	Advanced Air Mobility Technology Research and Demonstration Activities	7/6/2021	7/6/2026	Non-Reimbursable	\$0 AFRC	
	7 34998	Robust Analytics	Annex to Advanced Air Mobility Technology Research and Demonsstration Activities - Infrastructure	7/6/2021	7/6/2026	Non-Reimbursable	\$678,932 AFRC	
	8 34997	Robust Analytics	Advanced Air Mobility Technology Research and Demonsstration Activities	7/6/2021	7/6/2026	Non-Reimbursable	\$0 AFRC	
	9 34996	AURA Network Systems	Annex to Advanced Air Mobility Technology Research and Demonstration Activities	7/6/2021	7/6/2026	Non-Reimbursable	\$678,932 AFRC	
	10 34995	AURA Network Systems	Advanced Air Mobility Technology Research and Demonstration Activities	7/6/2021	7/6/2026	Non-Reimbursable	\$0 AFRC	

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	11 34994	University of North Texas	Annex to Advanced Air Mobility Technology Research and Demonstration Activities - Infrastructure	7/6/2021	7/6/2026	Non-Reimbursable	\$678,932 AFRC	
	12 34993	University of North Texas	Advanced Air Mobility Technology Research and Demonstration Activities	7/6/2021	7/6/2026	Non-Reimbursable	\$0 AFRC	
	13 34991	ARINC Incorporated	Annex to Participation in the NASA UAM Grand Challenge - Airspace	7/6/2021	7/6/2026	Non-Reimbursable	\$678,932 AFRC	
	14 34990	SkyGrid, LLC	Annex to Advanced Air Mobility Technology Research and Demonstration Activities - Infrastructure	7/6/2021	7/6/2026	Non-Reimbursable	\$678,932 AFRC	
	15 34989	SkyGrid, LLC	Annex to Advanced Air Mobility Technology Research and Demonstration Activities - Airspace	7/6/2021	7/6/2026	Non-Reimbursable	\$678,932 AFRC	

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	16 34988	SkyGrid, LLC	Advanced Air Mobility Technology Research and Demonstration Activities	7/6/2021	7/6/2026	Non-Reimbursable	\$0 AFRC	
	17 34987	OneSky Systems Inc	Annex to Advanced Air Mobility Technology Research and Demonstration Activities - Airspace	7/6/2021	7/6/2026	Non-Reimbursable	\$678,932 AFRC	
	18 34986	OneSky Systems Inc	Advanced Air Mobility Technology Research and Demonstration Activities	7/6/2021	7/6/2026	Non-Reimbursable	\$0 AFRC	
	19 34985	Metron Aviation, Inc	Annex to Advanced Air Mobility Technology Research and Demonstration Actvities	7/6/2021	7/6/2026	Non-Reimbursable	\$678,932 AFRC	
	20 34984	Metron Aviation, Inc	Advanced Air Mobility Technology Research and Demonstration Actvities	7/6/2021	7/6/2026	Non-Reimbursable	\$0 AFRC	

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	21 34983	Avision, INC	Annex to Advanced Air Mobility Technology Research and Demonstration Activities	7/6/2021	7/6/2026	Non-Reimbursable	\$678,932 AFRC	
	22 34982	Avision, Inc	Advanced Air Mobility Technology Research and Demonstration Activities	7/6/2021	7/6/2026	Non-Reimbursable	\$0 AFRC	
	23 34981	ANRA Technologies, LLC	Annex to Advanced Air Mobility Technology Research and Demonstration Activities - Airspace	7/6/2021	7/6/2026	Non-Reimbursable	\$678,932 AFRC	
	24 34980	ANRA Technologies, LLC	Advanced Air Mobility Technology Research and Demonstration Activities	7/6/2021	7/6/2026	Non-Reimbursable	\$0 AFRC	
	25 34979	Wisk Aero, LLC	Annex to Participation in the NASA AAM National Campaign - Flight Annex	7/6/2021	7/6/2026	Non-Reimbursable	\$592,104 AFRC	

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	26 34978	Reliable Robotics Corporation	Annex to Advanced Air Mobility Technology Research and Demonstration Activities - Flight Annex	7/6/2021	7/6/2026	Non-Reimbursable	\$592,104 AFRC	
	27 34977	Reliable Robotics Corporation	Advanced Air Mobility Technology Research and Demonstration Activities	7/6/2021	7/6/2026	Non-Reimbursable	\$0 AFRC	
	28 34443	Alaka'i Technologies Corporation	Annex to Participation in the NASA AAM National Campaign	10/2/2020	10/2/2025	Non-Reimbursable	\$592,104 AFRC	
	29 34442	Alaka'i Technologies Corporation	Participation in the NASA AAM National Campaign	10/2/2020	10/2/2025	Non-Reimbursable	\$0 AFRC	
	30 34439	Wisk Aero, LLC	AAM National Campaign - 1 Vehicle Provider Information Exchange Annex	10/22/2020	10/22/2025	Non-Reimbursable	\$592,104 AFRC	

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	31 34436	Wisk Aero, LLC	Participation in the NASA AAM National Campaign	10/22/2020	10/22/2025	Non-Reimbursable	\$0 AFRC	
	32 33352	Logistic Air, LLC	For Use of NASA SOFIA B747 Flight Simulator	10/19/2021	10/19/2024	Reimbursable	AFRC	
	33 33089	Bell Textron, Inc	Annex to Hybrid-Electric System Integration, Development and Testing Activities	1/15/2020	8/8/2024	Non-Reimbursable	\$592,104 AFRC	
	34 33088	The Boeing Company	Grand Challenge Vehicle Provider Information Exchange Annex	2/28/2020	2/28/2025	Non-Reimbursable	\$592,104 AFRC	
	35 33087	The Boeing Company	Participation in the NASA UAM Grand Challenge	2/28/2020	2/28/2025	Non-Reimbursable	\$0 AFRC	

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	36 33085	Zeva, Inc (dba Zeva Aero)	Grand Challenge Vehicle Provider Information Exchange Annex	2/3/2020	2/3/2025	Non-Reimbursable	\$592,104 AFRC	
	37 33084	Zeva, Inc (dba Zeva Aero)	Participation in the NASA UAM Grand Challenge	2/3/2020	2/3/2025	Non-Reimbursable	\$0 AFRC	
	38 33081	The University of North Texas	Grand Challenge - Development Test Airspace Annex	2/3/2020	2/3/2025	Non-Reimbursable	\$678,932 AFRC	
	39 33080	The University of North Texas	Participation in the NASA UAM Grand Challenge	2/3/2020	2/3/2025	Non-Reimbursable	\$0 AFRC	
	40 33079	Uber Technologies, Inc	Grand Challenge - Development Test Airspace Annex	2/3/2020	2/3/2025	Non-Reimbursable	\$678,932 AFRC	

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	41 33078	Uber Technologies, Inc	Participation in the NASA UAM Grand Challenge	2/3/2020	2/3/2025	Non-Reimbursable	\$0 AFRC	
	42 33076	Prodentity, LLC	Grand Challenge Vehicle Provider Information Exchange Annex	2/3/2020	2/3/2025	Non-Reimbursable	\$592,104 AFRC	
	43 33075	Prodentity, LLC	Participation in the NASA UAM Grand Challenge	2/3/2020	2/3/2025	Non-Reimbursable	\$0 AFRC	
	44 33073	OneSky Systems Inc	Grand Challenge - Development Test Airspace Annex	2/3/2020	2/3/2025	Non-Reimbursable	\$678,932 AFRC	
	45 33072	OneSky Systems Inc	Participation in the NASA UAM Grand Challenge	2/3/2020	2/3/2025	Non-Reimbursable	\$0 AFRC	

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	46 33065	NFT, Inc	Grand Challenge Vehicle Provider Information Exchange Annex	2/3/2020	2/3/2025	Non-Reimbursable	\$592,104 AFRC	
	47 33064	NFT, Inc	Participation in the NASA UAM Grand Challenge	2/3/2020	2/3/2025	Non-Reimbursable	\$0 AFRC	
	48 33063	Metron Aviation, Inc	Grand Challenge - Development Test Airspace Annex	2/3/2020	2/3/2025	Non-Reimbursable	\$678,932 AFRC	
	49 33062	Metron Aviation, Inc	Participation in the NASA UAM Grand Challenge	2/3/2020	2/3/2025	Non-Reimbursable	\$0 AFRC	
	50 33059	GeoRq LLC	Grand Challenge - Development Test Airspace Annex	2/3/2020	2/3/2025	Non-Reimbursable	\$678,932 AFRC	

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	51 33058	GeoRq LLC	Participation in the NASA UAM Grand Challenge	2/3/2020	2/3/2025	Non-Reimbursable	\$0 AFRC	
	52 33057	Ellis & Associates	Grand Challenge - Development Test Airspace Annex	2/3/2020	2/3/2025	Non-Reimbursable	\$678,932 AFRC	
	53 33056	Ellis & Associates	Participation in the NASA UAM Grand Challenge	2/3/2020	2/3/2025	Non-Reimbursable	\$0 AFRC	
	54 33055	Avision, Inc	Grand Challenge - Development Test Airspace Annex	2/3/2020	2/3/2025	Non-Reimbursable	\$678,932 AFRC	
	55 33054	Avision, Inc	Participation in the NASA UAM Grand Challenge	2/3/2020	2/3/2025	Non-Reimbursable	\$0 AFRC	

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	56 33039	ARINC Incorporated	Grand Challenge - Development Test Airspace Annex	2/3/2020	2/3/2025	Non-Reimbursable	\$678,932 AFRC	
	57 33038	ARINC Incorporated	Participation in the NASA UAM Grand Challenge	2/3/2020	2/3/2025	Non-Reimbursable	\$0 AFRC	
	58 33037	ANRA Technologies, LLC	Grand Challenge - Development Test Airspace Annex	2/3/2020	2/3/2025	Non-Reimbursable	\$678,932 AFRC	
	59 33036	ANRA Technologies, LLC	Participation in the NASA UAM Grand Challenge	2/3/2020	2/3/2025	Non-Reimbursable	\$0 AFRC	
	60 33035	AiRXOS, Inc	Grand Challenge - Development Test Airspace Annex	3/2/2020	3/2/2025	Non-Reimbursable	\$678,932 AFRC	

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	61 33034	AiRXOS, Inc	Participation in the NASA UAM Grand Challenge	3/2/2020	3/2/2025	Non-Reimbursable	\$0 AFRC	
	62 33033	Airmap, Inc	Participation in the NASA UAM Grand Challenge - Development Test Airspace Annex	2/3/2020	2/3/2025	Non-Reimbursable	\$678,932 AFRC	
	63 33032	Airmap, Inc	Participation in the NASA UAM Grand Challenge	2/3/2020	2/3/2025	Non-Reimbursable	\$0 AFRC	
	64 33031	Joby Aviation, Inc	Grand Challenge - Development Test Flight Annex	2/19/2020	2/19/2025	Non-Reimbursable	\$592,104 AFRC	
	65 33030	Joby Aviation, Inc	Participation in the NASA UAM Grand Challenge	2/19/2020	2/19/2025	Non-Reimbursable	\$0 AFRC	

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	66 32757	AeroVironment, Inc.	Small Unmanned Aircraft System (SUAS)Testing and Trainir	11/10/2020	11/10/2025	Reimbursable	AFRC	
	67 32489	Virgin Galactic Holdings	Collaborative Medical Device Development in Response to COVID-19 Pandemic	4/22/2020	4/22/2023	Non-Reimbursable	\$0 AFRC	
	68 32339	Fenix Space, Inc.	Supporting Development of a Tow-glider Launch Platform the	5/27/2020	5/27/2025	Reimbursable	AFRC	
	69 32338	Fenix Space, Inc.	Development of Tow-glider Launch Platform	5/27/2020	5/27/2025	Reimbursable	AFRC	
	70 32162	Learjet, Inc	Flight Test Support of Global 7500 Business Jet	5/17/2021	5/17/2022	Reimbursable	AFRC	

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	71 32161	Learjet, Inc	Business Jet Flight Test Support	5/17/2021	5/17/2026	Reimbursable	AFRC	
	72 31875	Stratolaunch, LLC	Annex to Support Flight Operations of the Stratolaunch Carri	6/18/2020	2/13/2025	Reimbursable	AFRC	
	73 31694	Stratolaunch, LLC	To Support Flight Operations of the Stratolaunch Carrier Airc	2/13/2020	2/13/2025	Reimbursable	AFRC	
	74 31693	Stratolaunch, LLC	To Support Flight Operations of the Stratolaunch Carrier Airc	2/13/2020	2/13/2025	Reimbursable	AFRC	
	75 31588	Lockheed Martin	Annex to NASA ER-2 Low Power Laser Demonstrator (LPLD	1/8/2020	11/27/2022	Reimbursable	AFRC	

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76	31026	Northrop Grumman	Reimbursable Space Act Agreement between Northrop Gru	n 2/6/2020	2/6/2023	Reimbursable		AFRC
77	30284	General Electric Aviation	General Electric Aviation Use of NASA SOFIA B747 Flight S	ii 5/8/2019	5/8/2024	Reimbursable		AFRC
78	29919	Scaled Composites	For Use of NASA SOFIA B747 Flight Simulator	3/21/2019	3/21/2022	Reimbursable		AFRC
79	29252	The Boeing Company	Annex to Aerospace Research Development	4/5/2019	2/3/2022	Non-Reimbursable	\$699,161	AFRC SAA1-23831
80	28763	Echodyne Corporation	Resilient Autonomy Collaboration	9/25/2019	11/25/2021	Non-Reimbursable	\$11,036	AFRC

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	81 27967	Aerovironment, Inc	Unmanned Aircraft Systems (UAS) Testing	11/14/2018	11/14/2023	Reimbursable	AFRC	
	82 27347	Modern Technology Solutions, Inc.	Collaborative development of contingency management for autonomous aircraft	8/6/2018	12/6/2021	Non-Reimbursable	\$374,127 AFRC	
	83 26975	Bell Textron, Inc	Hybrid-Electric System Integration, Development and Testing Activities	8/8/2019	8/8/2022	Non-Reimbursable	\$1,519,555 AFRC	
	84 26974	Bell Textron, Inc	Hybrid-Electric System Integration, Development and Testing Activities	8/8/2019	8/8/2024	Non-Reimbursable	\$0 AFRC	
	85 25826	Raytheon Company	For Use of NASA SOFIA B747 Flight Simulator	6/22/2017	6/22/2022	Reimbursable	AFRC	

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86	25811	Lockheed Martin	NASA ER-2 Low Power Laser Demonstrator (LPLD)	11/27/2017	11/27/2022	Reimbursable	AFRC	
87	25562	Safety Technology Holdings, Incorpo	Reimbursable Space Act Agreement to support the test setu	12/7/2017	12/7/2022	Reimbursable	AFRC	
88	24538	TriTech Small Business Development Center	Annex to Non-Reimbursable Space Act Agreement with TriTech SBDC for Small Business Innovation Research/Small Business Technology Transfer assistance	4/17/2017	4/17/2022	Non-Reimbursable	\$5,160 AFRC	
89	24537	TriTech Small Business Development Center	Annex to Non-Reimbursable Space Act Agreement with TriTech SBDC for Regional Economic Development	4/17/2017	4/17/2022	Non-Reimbursable	\$7,313 AFRC	
90	23718	TriTech Small Business Development Center	Non-Reimbursable Space Act Agreement with TriTech SBDC for Regional Economic Development, including Technology Transfer assistance	4/17/2017	4/17/2022	Non-Reimbursable	\$2,733 AFRC	

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	91 23717	TriTech Small Business Development Center	Non-Reimbursable Space Act Agreement with TriTech SBDC for Regional Economic Development, including Technology Transfer and Small Business Innovation Research/Small Business Technology Transfer Assistance	4/17/2017	4/17/2022	Non-Reimbursable	\$0 AFRC	
	92 23205	Lockheed Martin Aeronautics Comp	oa Develop Cost Estimate of Proposed Tests	4/24/2017	4/24/2022	Reimbursable	AFRC	
	93 23204	Lockheed Martin Aeronautics Comp	pa Testing Support of Lockheed Martin Test Articles	4/24/2017	4/24/2022	Reimbursable	AFRC	
	94 23109	Battelle Memorial Institute	Development of an Ice Prevention System	11/17/2016	11/17/2021	Reimbursable	AFRC	
	95 23044	Cal Poly Pomona Foundation, Inc	Non-Reimbursable Space Act Agreement Between Cal Poly Pomona Foundation, Inc. to Evaluate, Prototype, and Conduct Market Research on Technologies available for licensing within the Intellectual Property Portfolio	1/5/2017	1/5/2022	Non-Reimbursable	\$3,918 AFRC	

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	96 21777	Cal Poly Pomona Foundation, Inc	Non-Reimbursable Space Act Agreement Between Cal Poly Pomona Foundation, Inc. to Evaluate, Prototype, and Conduct Market Research on technologies within the Technology Transfer Patent Portfolio	1/5/2017	1/5/2022	Non-Reimbursable	\$0 AFRC	
	97 21370	Sands Aviation LLC	For Use of NASA SOFIA B747 Flight Simulator	9/30/2015	10/31/2021	Reimbursable	AFRC	
	98 35390	Agscent USA	Reimbursable Space Act Agreement between NASA Ames F	9/27/2021	9/27/2022	Reimbursable	ARC	SAA2-403652
	99 35267	Gulfstream Aerospace Corporation	Annex Two to Reimbursable Umbrella Space Act Agreemen	t9/13/2021	9/13/2022	Reimbursable	ARC	SAA2-403564-2
,	100 35266	Dallas/Fort Worth International Airport Board	Non-Reimbursable Space Act Agreement between NASA Ames Research Center and Dallas/Fort Worth International Airport Board for Data Sharing for NextGen Research and Development	9/29/2021	9/29/2026	Non-Reimbursable	\$338,769 ARC	SAA2-403645

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10	34910	Small Payload Ride Share Association	Nonreimbursable Space Act Agreement between NASA Ames Research Center and the Small Payload Ride Share Association for Co-hosting the 2021 Small Payload Ride Share Virtual Symposium	7/8/2021	7/8/2022	Non-Reimbursable	\$57,997 ARC	SAA2-403632
10	02 34899	DYNETICS CORP	Annex One under Reimbursable Space Act Umbrella Agreer	10/12/2021	10/12/2022	Reimbursable	ARC	SAA2-403636 -1
10	34898	DYNETICS CORP	Reimbursable Space Act Umbrella Agreement between NAS	310/12/2021	10/12/2026	Reimbursable	ARC	SAA2-403636
10	)4 34812	Skydio, Inc.	Annex One to Non-Reimbursable Space Act Umbrella Agreement between NASA Ames Research Center and the Skydio Inc. for Autonomous UAS Technology Research and Development	9/1/2021	9/1/2023	Non-Reimbursable	\$278,220 ARC	SAA2-403630-1
10	05 34811	Skydio, Inc.	Non-Reimbursable Space Act Umbrella Agreement between NASA Ames Research Center and the Skydio Inc. for Autonomous UAS Technology Research and Development	9/1/2021	9/1/2026	Non-Reimbursable	\$0 ARC	SAA2-403630

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106	34678	Microsoft Corporation	Annex One under Non-Reimbursable Space Act Umbrella Agreement between NASA Ames Research Center and Microsoft Corporation for Cloud-Base Simulation Platform Prototype	7/16/2021	1/16/2023	Non-Reimbursable	\$839,441	ARC	SAA2-403624-1
107	34677	Microsoft Corporation	Non-Reimbursable Space Act Umbrella Agreement between NASA Ames Research Center and Microsoft Corporation for Cloud-Base Simulation Platform Prototype		7/16/2026	Non-Reimbursable	\$0	ARC	SAA2-403624
108	34539	The Boeing Company	Non-Reimbursable Space Act Agreement between NASA ARC and Boeing Company for Computational Assessment and Wind Tunnel Data Correlation for a Low Boom Demonstrator Concept	9/27/2021	9/27/2024	Non-Reimbursable	\$45,541	ARC	SAA2-403620
109	34521	Avision, Inc.	Nonreimbursable Space Act Agreement between NASA Ames Research Center and Avision, Inc for Scalable Traffic Management for Emergency Response Operations (STEReO)	4/27/2021	4/27/2026	Non-Reimbursable	\$1,273,460	ARC	SAA2-403618
110	34508	Skycorp, Inc	Reimbursable Space Act Agreement between NASA Ames F	9/7/2021	9/7/2022	Reimbursable		ARC	SAA2-403616

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111	34471	General Electric Company	Annex One under Non-Reimbursable Umbrella Space Act Agreement between NASA Ames Research Center and General Electric Company for Safety Assurance of Flight Critical Systems	5/20/2021	5/20/2024	Non-Reimbursable	\$475,075	ARC	SAA2-403615-1
112	34470	General Electric Company	Non-Reimbursable Umbrella Space Act Agreement between NASA Ames Research Center and General Electric Company for Safety Assurance of Flight Critical Systems	5/20/2021	5/20/2026	Non-Reimbursable	\$0	ARC	SAA2-403615
113	34263	The Boeing Company	Annex 2 under Reimbursable Umbrella Space Act Agreeme	^4/26/2021	4/26/2022	Reimbursable		ARC	SAA2-403460-2
114	34262	Northrop Grumman Corporation	Annex Two to the Reimbursable Space Act Umbrella Agreer	r 4/28/2021	4/28/2022	Reimbursable		ARC	SAA2-403514-2
115	34243	Founder Institute, Incorporated	Annex Two to Nonreimbursable Space Act Umbrella Agreement between the National Aeronautics and Space Administration Ames Research Center and Founder Institute, Incorporated for Phase 2 - Founder Institute Advanced Technology Accelerator Program	5/20/2021	11/19/2022	Non-Reimbursable	\$21,502	ARC	SAA2-403517-2

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116	34095	Chabot Space & Science Center	Annex One to Non-Reimbursable Umbrella Interagency Agreement between NASA ARC and the Chabot Space and Science Center for Framework on Regional Partnership	2/8/2021	2/8/2023	Non-Reimbursable	\$2,400,475	ARC	SAA2-403607-1
117	34094	Chabot Space & Science Center	Non-Reimbursable Umbrella Interagency Agreement between NASA Ames Research Center and the Chabot Space and Science Center for Framework on Regional Partnership	2/8/2021	2/8/2026	Non-Reimbursable	\$0	ARC	SAA2-403607
118	33913	KAI, LLC	Non-Reimbursable Space Act Agreement between NASA Ames Research Center and KAI, LLC for the Development of Flexible Thermal Protection Systems Materials	2/19/2021	2/19/2023	Non-Reimbursable	\$13,524	ARC	SAA2-403603
119	33785	Astranis Space Technologies Corpor	Reimbursable Space Act Agreement between NASA Ames I	1/5/2021	1/5/2022	Reimbursable		ARC	SAA2-403599
120	33289	Rocket Lab USA	Annex One under NRUSAA between NASA ARC and Rocket Lab for Space Science, Earth Science, and Engineering Research	10/14/2020	4/14/2022	Non-Reimbursable	\$79,329	ARC	SAA2-403591-1

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121	33288	Rocket Lab USA	Non-Reimbursable Umbrella Space Act Agreement between NASA ARC and Rocket Lab for Space Science, Earth Science, and Engineering Research	10/14/2020	10/14/2025	Non-Reimbursable	\$0	ARC	SAA2-403591
122	33148	Stanford Blood Center	Non-Reimbursable Space Act Agreement between NASA Ames Research Center and Stanford Blood Center for Blood Drives	10/6/2020	10/6/2025	Non-Reimbursable	\$12,568	ARC	SAA2-403588
123	33083	Virgin Orbit	Annex One under Reimbursable Umbrella Space Act Agree	n 10/6/2020	10/6/2021	Reimbursable		ARC	SAA2-403586-1
124	33082	Virgin Orbit	Reimbursable Umbrella Space Act Agreement between NAS	S 10/6/2020	10/6/2025	Reimbursable		ARC	SAA2-403586
125	33061	Sentinel Healthcare Corporation	Annex One under Nonreimbursable Umbrella Space Act Agreement between NASA Ames Research Center and Sentinel Healthcare for a Data-Driven Pandemic Response Management System	9/8/2020	9/8/2022	Non-Reimbursable	\$10,816	ARC	SAA2-403585-1

ROW NO.	PAM ID NUMBER	PARTNER NAME	TITLE/PURPOSE	SIGNATURE DATE	EXPIRATION DATE	TYPE OF AGREEMENT	COMULATIVE DOLLAR CENTER	CENTER TRACKING NUMBER (IF ANY)
1:	26 33060	Sentinel Healthcare Corporation	Nonreimbursable Umbrella Space Act Agreement between NASA Ames Research Center and Sentinel Healthcare for a Data-Driven Pandemic Response Management System (COVID-19)	9/8/2020	9/8/2025	Non-Reimbursable	\$0 ARC	SAA2-403585
1:	27 33001	Physics Applications, Inc.	Reimbursable Space Act Agreement between NASA Ames F	3/8/2021	3/8/2022	Reimbursable	ARC	SAA2-403583
1:	28 33000	Lawrence Livermore National Secu	rit Annex 1 under Reimbursable Umbrella Space Act Agreemer	1/13/2021	1/13/2022	Reimbursable	ARC	SAA2-403582-1
1:	29 32994	Lawrence Livermore National Secu	rit Annex Two under RUSAA between NASA ARC and Lawrenc	:4/5/2021	4/5/2022	Reimbursable	ARC	SAA2-403582-2
1:	30 32993	Lawrence Livermore National Secu	rit Reimbursable Umbrella Space Act Agreement between NAS	1/13/2021	1/13/2026	Reimbursable	ARC	SAA2-403582

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131	32992	Purdue University	Annex One under Non-Reimbursable Umbrella Space Act Agreement between NASA Ames Research Center and Purdue University for Research and Development in Aerospace, Earth Science, and Aviation Systems	12/15/2020	12/15/2025	Non-Reimbursable	\$96,476	ARC	SAA2-403581-1
132	32991	Purdue University	Non-Reimbursable Umbrella Space Act Agreement between NASA Ames Research Center and Purdue University for Research and Development in Aerospace, Earth Science, and Aviation Systems	12/15/2020	12/15/2025	Non-Reimbursable	\$0	ARC	SAA2-403581
133	32905	California Polytechnic State University	Annex One to Non-reimbursable Umbrella Space Act Agreement between NASA Ames Research Center and California Polytechnic State University for Space Exploration, Science and Engineering Research, and STEM Initiatives	6/20/2021	6/20/2024	Non-Reimbursable	\$96,152	ARC	SAA2-403539-1
134	32865	California Department of Forestry and Fire Protection	Non-Reimbursable Space Act Agreement between NASA Ames Research Center and California Department of Forestry and Fire Protection (CAL FIRE) for Scalable Traffic Management for Emergency Response Operation (STEReO)	4/5/2021	4/5/2026	Non-Reimbursable	\$1,892,439	ARC	SAA2-403576
135	32736	NISSAN NORTH AMERICA, INC	Annex 2 under RUSAA between NASA ARC and Nissan No	<sup>-</sup> 6/12/2020	6/12/2022	Reimbursable		ARC	SAA2-403545-2

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136	32699	University of Colorade Boulder	Annex 1 to the Non-Reimbursable Umbrella Space Act Agreement between NASA Ames Research Center and University of Colorado for Exploration, Development, and Testing of High Temperature Materials for Hypersonics	4/19/2021	4/19/2026	Non-Reimbursable	\$186,242	ARC	SAA2-403529-1
137	32613	Foundation	Non-Reimbursable Space Act Agreement between NASA Ames and Khaled bin Sultan Living Oceans Foundation for Sharing Data to Improve Benthic Habitat Map	5/15/2021	5/15/2026	Non-Reimbursable	\$126,200	ARC	SAA2-403568
138	32577	Delta Air Lines, Inc.	Non-Reimbursable Space Act Agreement between NASA Ames and Delta Airlines, Inc. for Human Factors Fatigue Research	11/24/2020	11/24/2025	Non-Reimbursable	\$740,892	ARC	SAA2-403566
139	32574	VERDIGRIS TECHNOLOGIES, INC	Nonreimbursable Space Act Agreement between Verdigris Technologies, Inc. and NASA Ames Research Center for Advanced Sensing and Health Management for Sustainable Habitats	1/27/2021	1/27/2026	Non-Reimbursable	\$182,296	ARC	SAA2-403565
140	32524	San Jose State University	Annex One under Non-reimbursable Umbrella Space Act Agreement between NASA Ames Research Center and San Jose State University for Space Exploration, Science and Engineering Research, and STEM Initiatives	2/18/2021	2/18/2026	Non-Reimbursable	\$93,399	ARC	SAA2-403536-1

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14	32522	Gulfstream Aerospace Corporation	Annex one under Reimbursable Umbrella Space Act Agreer	r 8/15/2021	8/15/2022	Reimbursable		ARC	SAA2-403564-1
142	2 32521	Gulfstream Aerospace Corporation	Reimbursable Umbrella Space Act Agreement between NAS	8/15/2021	8/15/2026	Reimbursable		ARC	SAA2-403564
143	3 32517	MOFFETT FIELD HISTORICAL SOC	Reimbursable Space Act Agreement between NASA Ames	F 6/29/2020	6/29/2025	Reimbursable		ARC	SAA2-403562
144	1 32345	County of Santa Clara Office of the S	Reimbursable Space Act Agreement between NASA Ames a	a 10/1/2020	9/30/2025	Reimbursable		ARC	SAA2-403555
145	32295	American Airlines	Annex One under Nonreimbursable Umbrella Space Act Agreement between NASA Ames Research Center and American Airlines for Collaborative Research to Improve Aviation Safety	3/1/2021	3/1/2024	Non-Reimbursable	\$1,789,221	ARC	SAA2-403551-1

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146	32294	American Airlines	NONREIMBURSABLE SPACE ACT UMBRELLA AGREEMENT BETWEEN THE NATIONAL AERONAUTICS AND SPACE ADMINISTRATION AMES RESEARCH CENTER AND AMERICAN AIRLINES FOR COLLABORATIVE RESEARCH TO IMPROVE AVIATION SAFETY	3/1/2021	3/1/2026	Non-Reimbursable	\$0	ARC	SAA2-403551
147	32210	SAN JOSE STATE UNIVERSITY	Non-reimbursable Umbrella Space Act Agreement between NASA Ames Research Center and San Jose State University for Space Exploration, Science and Engineering Research, and STEM Initiatives	2/18/2021	2/18/2026	Non-Reimbursable	\$0	ARC	SAA2-403536
148	32209	California Polytechnic State University	Non-reimbursable Umbrella Space Act Agreement between NASA Ames Research Center and California Polytechnic State University for Space Exploration, Science and Engineering Research, and STEM Initiatives	6/20/2021	6/20/2026	Non-Reimbursable	\$0	ARC	SAA2-403539
149	32187	LOCKHEED MARTIN	Reimbursable Space Act Agreement between NASA ARC at	<sup>-</sup> 5/1/2020	12/30/2022	Reimbursable		ARC	SAA2-403549
150	32119	The Spaceship Company	Reimbursable Space Act Agreement between NASA Ames I	10/7/2020	10/7/2021	Reimbursable		ARC	SAA2-403543

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	151 31973	NISSAN NORTH AMERICA, INC	Annex 1 between NASA ARC and Nissan North America for	6/12/2020	6/12/2022	Reimbursable	ARC	SAA2-403545-1
	152 31972	NISSAN NORTH AMERICA, INC	Reimbursable Umbrella Space Act Agreement between NAS	6/12/2020	6/12/2025	Reimbursable	ARC	SAA2-403545
	153 31897	Arizona State University	Annex One to NRUSAA between NASA ARC and Arizona State University for Technology Transfer Academia Infusion	5/22/2020	5/21/2025	Non-Reimbursable	\$62,883 ARC	SAA2-403530-1
	154 31896	Arizona State University	Non-reimbursable Umbrella Space Act Agreement between NASA Ames Research Center and Arizona State University for Space Exploration, Science and Engineering Research, and STEM Initiatives	5/21/2020	5/21/2025	Non-Reimbursable	\$0 ARC	SAA2-403530
	155 31890	UNIVERSITY OF COLORADO BOULDER	Non-reimbursable Umbrella Space Act Agreement between NASA Ames Research Center and the University of Colorado at Boulder for Space Exploration, Science and Engineering Research, and STEM Initiatives	4/19/2021	4/19/2026	Non-Reimbursable	\$0 ARC	SAA2-403529

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156	31848	SPACE SYSTEMS LORAL, LLC	Annex 1 to Nonreimbursable Umbrella Space Act Agreement between NASA ARC and Space Systems Loral for Robotic and Spacecraft Technology Research	4/16/2020	4/16/2023	Non-Reimbursable	\$62,229	ARC	SAA2-403528-1
157	31847	SPACE SYSTEMS LORAL, LLC	Reimbursable Umbrella Space Act Agreement between NASA ARC and Space Systems Loral for Robotic and Spacecraft Technology Research	4/16/2020	4/16/2025	Non-Reimbursable	\$0	ARC	SAA2-403528
158	31788	STATE OF CALIFORNIA, Departme	Reimbursable Space Act Agreement between NASA Ames I	2/19/2021	2/19/2024	Reimbursable		ARC	SAA2-403526
159	31732	University of Guam	Reimbursable Space Act Agreement between NASA Ames I	5/15/2021	5/15/2022	Reimbursable		ARC	SAA2-403524
160	31474	Uber Technologies Inc	Annex between the National Aeronautics and Space Administration Ames Research Center and Uber Technologies Inc under Space Act Umbrella Agreement No. 27889, SAA2-403420 (Annex Number Two)	2/3/2020	2/3/2023	Non-Reimbursable	\$1,463,871	ARC	SAA2-403420-2

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1	161 31447	Founder Institute, Incorporated	Nonreimbursable Space Act Umbrella Agreement between the National Aeronautics and Space Administration Ames Research Center and Founder Institute, Incorporated for the Fostering of Space Entrepreneurship	11/19/2019	11/19/2022	Non-Reimbursable	\$0 ARC	SAA2-403517
1	162 31359	Northrop Grumman Corporation	REIMBURSABLE SPACE ACT UMBRELLA AGREEMENT N	1/20/2020	1/20/2025	Reimbursable	ARC	SAA2-403514
1	163 31234	GOOGLE, LLC	Reimbursable Space Act Agreement between NASA ARC ar	3/30/2020	3/29/2022	Reimbursable	ARC	SAA2-403512
1	31044	NTT Research, Inc.	Reimbursable Space Act Agreement between the National A	11/12/2019	11/12/2024	Reimbursable	ARC	SAA2-403506
1	165 30884	San Francisco International Airport	Reimbursable Umbrella Space Act Agreement between The	7/2/2019	7/2/2024	Reimbursable	ARC	SAA2-403426

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166	30834	Advanced Technologies Group, Inc.	Reimbursable Umbrella Space Act Agreement between NAS	5 12/20/2019	12/20/2024	Reimbursable		ARC	SAA2-403500
167	30730	UNIVERSITY OF WASHINGTON	Annex between the National Aeronautics and Space Admini	s 8/27/2019	8/27/2022	Reimbursable		ARC	SAA2-403496-1
168	30729	UNIVERSITY OF WASHINGTON	Reimbursable Space Act Umbrella Agreement between the	N 8/27/2019	8/27/2024	Reimbursable		ARC	SAA2-403496
169	30601	SAN JOSE STATE UNIVERSITY	Annex One to Nonreimbursable Umbrella Space Act Agreement between the National Aeronautics and Space Administration Ames Research Center and San Jose State University to Facilitate Development of Nano-Satellite Sub- Systems and Sensors	6/20/2019	6/20/2022	Non-Reimbursable	\$19,719	ARC	SAA2-403280 -1
170	30598	SAN JOSE STATE UNIVERSITY	Nonreimbursable Umbrella Space Act Agreement between the National Aeronautics and Space Administration Ames Research Center and San Jose State University for TechEdSat N Academia Infusion	6/20/2019	6/20/2022	Non-Reimbursable	\$0	ARC	SAA2-403280

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17	71 30453	Leland Stanford Junior University	Annex One under Reimbursable Umbrella Space Act Agreer	12/16/2020	12/16/2021	Reimbursable	ARC	SAA2-403497-1
17	72 30452	Leland Stanford Junior University	Reimbursable Umbrella Space Act Agreement between NAS	12/16/2020	12/16/2025	Reimbursable	ARC	SAA2-403497
17	73 30437	Rockwell Collins, Inc	Nonreimbursable Space Act Agreement between the National Aeronautics and Space Administration Ames Research Center and Rockwell Collins, Inc. for Human-Autonomy Teaming Research	8/26/2019	8/26/2023	Non-Reimbursable	\$450,224 ARC	SAA2-403491
17	74 30244	GE Flight Efficiency Services, Inc.	Non-Reimbursable Space Act Umbrella Agreement Between the National Aeronautics and Space Administration Ames Research Center and GE Flight Efficiency Services, Inc. for Collaborative Development and Use of NASA ATM- X Testbed for Integrated ATM Research	9/12/2019	9/12/2024	Non-Reimbursable	\$0 ARC	SAA2-403486
17	75 30167	Airxos	Non-Reimbursable Space Act Agreement Between Airxos and NASA Ames for Unmanned Aircraft Systems Traffic Management.	4/5/2019	4/5/2022	Non-Reimbursable	\$24,585 ARC	SAA2-403422

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176	30078	Iowa State University	Non-Reimbursable Space Act Agreement Between NASA Ames and Iowa State University (ISU) for Unmanned Aircraft Systems Traffic Management (UTM)	3/28/2019	3/28/2022	Non-Reimbursable	\$24,585	ARC	SAA2-403449
177	29967	American Space Industries, Inc.	Reimbursable Space Act Agreement Between NASA Ames	3/2/2019	3/2/2022	Reimbursable		ARC	SAA2-403421
178	29856	Texas A&M Engineering Experiment Station	Non-Reimbursable Space Act Agreement Between NASA Ames and Texas AM Engineering Experiment Station for Investigating Additive Manufacturing of Thermal Protection Material	2/20/2019	2/20/2022	Non-Reimbursable	\$32,675	ARC	SAA2-403455
179	29462	Voltex Technology, Inc.	Reimbursable Space Act Agreement between the National A	7/31/2019	1/31/2022	Reimbursable		ARC	SAA2-403466
180	29399	SkyTran Inc.	Annex One under Reimbursable Umbrella Space Act Agree	7/2/2021	1/2/2023	Reimbursable		ARC	SAA2-403462-1

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1	81 29398	SkyTran Inc.	Reimbursable Umbrella Space Act Agreement between NAS	7/2/2021	7/2/2026	Reimbursable	ARC	SAA2-403462
1	82 29380	The Boeing Company	Reimbursable Umbrella Space Act Agreement between NAS	4/27/2020	4/27/2025	Reimbursable	ARC	SAA2-403460
1	83 28878	SOUTHWEST AIRLINES COMPANY	Non-Reimbursable Space Act Agreement between NASA Ames Research Center and Southwest Airlines for Development and Evaluation of an Air Traffic Management System	7/12/2019	1/12/2022	Non-Reimbursable	\$225,914 ARC	SAA2-403448
1	84 28735	UASidekick	Non-Reimbursable Space Act Agreement Between UASidekick and the National Aeronautics and Space Administration Ames Research Center for Unmanned Aircraft Systems Traffic Management	11/19/2018	11/19/2021	Non-Reimbursable	\$17,565 ARC	SAA2-403453
1	85 28415	Planetary Ventures, LLC	Temporary Construction License between NASA Ames and I	5/24/2018	12/31/9999	Reimbursable	ARC	SAA2-403414

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186	28264	UNIVERSITY OF CINCINNATI	Annex Three to the Nonreimbursable Umbrella Space Act Agreement between the University of Cincinnati and The National Aeronautics And Space Administration, Ames Research Center for Providing Educational Opportunities to Students to Evaluate Technology Transfer Opportunities	11/1/2018	11/1/2023	Non-Reimbursable	\$118,116	ARC	SAA2-402808-3
187	27956	Stratolaunch Federal Inc	Annex Five to the Reimbursable Umbrella Space Act Agreer	r4/5/2018	12/6/2021	Reimbursable		ARC	SAA2-403221-5
188	27940	Stratolaunch Systems Corporation	Annex 4 for Reimbursable Umbrella Space Act Agreement b	4/5/2018	12/6/2021	Reimbursable		ARC	SAA2-403221-4
189	27918	Stratolaunch Federal Inc	Annex Three to the Reimbursable Umbrella Space Act Agree	4/5/2018	12/6/2021	Reimbursable		ARC	SAA2-403221-3
190	27890	Uber Technologies Inc	Annex One to the Non-Reimbursable Umbrella Space Act Agreement Between the National Aeronautics and Space Administration Ames Research Center and Uber Technologies Inc for Initial Modeling and Simulations of Urban Air Mobility Operations for Airspace Access and Scalability	5/4/2018	1/4/2022	Non-Reimbursable	\$604,820	ARC	SAA2-403420-1

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1	91 27889	Uber Technologies Inc	Non-Reimbursable Umbrella Between the National Aeronautics and Space Administration Ames Research Center and Uber Technologies Inc for Research, Development, Testing and Evaluation of an Urban Air Mobility (UAM) System	5/4/2018	5/4/2023	Non-Reimbursable	\$0 ARC	SAA2-403420
1	92 27872	Space Exploration Technologies Co	on Reimbursable Umbrella Space Act Agreement Between the I	6/6/2018	6/6/2023	Reimbursable	ARC	SAA2-403419
1	93 27787	GOOGLE, LLC	Non-Reimbursable Space Act Agreement Between the National Aeronautics and Space Administration Ames Research Center and Google LLC to Analyze the Utilization and Assessment of Googles Emerging Quantum Processors	7/3/2018	7/3/2023	Non-Reimbursable	\$680,962 ARC	SAA2-403407
1	94 27617	Blue Origin, LLC	Annex One to the Reimbursable Umbrella Space Act Agreen	7/13/2018	7/13/2023	Reimbursable	ARC	SAA2-403403-1
1	95 27616	Blue Origin, LLC	Reimbursable Umbrella Space Act Agreement Between the I	7/13/2018	7/13/2023	Reimbursable	ARC	SAA2-403403

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196	27441	AgustaWestland Philadelphia Corpor	Reimbursable Umbrella Space Act Agreement Between the	1/29/2018	1/29/2023	Reimbursable		ARC	SAA2-403286
197	26743	INTEL CORP	Non-Reimbursable Space Act Agreement between the National Aeronautics and Space Administration Ames Research Center and Intel Corporation for Collaboration to Evaluate NASA's Computational Performance	9/20/2017	9/19/2022	Non-Reimbursable	\$106,091	ARC	SAA2-403249
198	26364	Walmart Stores, Inc	Nonreimbursable Space Act Agreement between Walmart Stores, Inc and the National Aeronautics and Space Administration, Ames Research Center for Unmanned Aircraft Systems Traffic Management	7/31/2017	7/31/2022	Non-Reimbursable	\$102,925	ARC	SAA2-403248
199	26363	The Boeing Company	Nonreimbursable Space Act Agreement between The Boeing Company and the National Aeronautics and Space Administration, Ames Research Center for Unmanned Aircraft Systems Traffic Management	7/31/2017	7/31/2022	Non-Reimbursable	\$102,925	ARC	SAA2-403229
200	26361	THE PORT AUTHORITY OF NEW YORK AND NEW JERSEY	Nonreimbursable Umbrella Space Act Agreement between the National Aeronautics and Space Administration, Ames Research Center and Port Authority of New York and New Jersey for Capacity Improvement and Delay Reduction in the New York Metroplex	7/31/2017	7/31/2022	Non-Reimbursable	\$0	ARC	SAA2-403156

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20	1 26320	Northeast UAS Airspace Integration	Reimbursable Space Act Agreement between the National A	A 7/31/2017	7/31/2022	Reimbursable		ARC	SAA2-403197
20	2 26319	Northeast UAS Airspace Integration Research Alliance, Inc.	Nonreimbursable Space Act Agreement between the National Aeronautics and Space Administration, Ames Research Center and Northeast UAS Airspace Integration Research Alliance, Inc. for UAS Traffic Management	7/31/2017	7/31/2022	Non-Reimbursable	\$102,925	ARC	SAA2-403196
20	3 26114	Botlink, LLC	Nonreimbursable Space Act Agreement between Botlink, LLC and the National Aeronautics and Space Administration, Ames Research Center for Unmanned Aircraft Systems Traffic Management	5/13/2017	5/13/2022	Non-Reimbursable	\$102,925	ARC	SAA2-403261
20	4 26113	Carbon Autonomous Systems LLC	Nonreimbursable Space Act Agreement between Carbon Autonomous Systems LLC and the National Aeronautics and Space Administration, Ames Research Center for Unmanned Aircraft Systems Traffic Management	5/10/2017	5/10/2022	Non-Reimbursable	\$1,000	ARC	SAA2-403257
20	5 26112	Skyskopes	Nonreimbursable Space Act Agreement between Skyskopes and the National Aeronautics and Space Administration, Ames Research Center for Unmanned Aircraft Systems Traffic Management	5/10/2017	5/10/2022	Non-Reimbursable	\$102,925	ARC	SAA2-403259

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206	26110	Drone America	Nonreimbursable Space Act Agreement between Drone America and the National Aeronautics and Space Administration, Ames Research Center for Unmanned Aircraft Systems Traffic Management	5/11/2017	5/11/2022	Non-Reimbursable	\$1,000	ARC	SAA2-403253
207	26108	ISight RPV Services	Nonreimbursable Space Act Agreement between ISight RPV Services and the National Aeronautics and Space Administration, Ames Research Center for Unmanned Aircraft Systems Traffic Management	5/11/2017	5/11/2022	Non-Reimbursable	\$102,925	ARC	SAA2-403265
208	25922	Unmanned Applications Institute International	Nonreimbursable Space Act Agreement between Unmanned Applications Institute International and the National Aeronautics and Space Administration, Ames Research Center for Unmanned Aircraft Systems Traffic Management	5/11/2017	5/11/2022	Non-Reimbursable	\$102,925	ARC	SAA2-403260
209	25787	The General Electric Company	Reimbursable Space Act Agreement between the National A	5/17/2017	5/17/2022	Reimbursable		ARC	SAA2-403256
210	25578	General Atomics Aeronautical System	Reimbursable Umbrella Space Act Agreement between the	4/20/2017	4/20/2022	Reimbursable		ARC	SAA2-403246

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21	1 25495	Sapphire Innovation Solutions, Inc.	Nonreimbursable Space Act Agreement between Sapphire Innovation Solutions, Inc. and the National Aeronautics and Space Administration, Ames Research Center for Unmanned Aircraft Systems Traffic Management	4/3/2017	4/3/2022	Non-Reimbursable	\$1,000 ARC	SAA2-403251
21	2 25494	Flyspan Systems, Inc.	Nonreimbursable Space Act Agreement between Flyspan Systems, Inc. and the National Aeronautics and Space Administration, Ames Research Center for Unmanned Aircraft Systems Traffic Management	4/3/2017	4/3/2022	Non-Reimbursable	\$1,000 ARC	SAA2-403250
21	3 25213	Rigetti Computing	Nonreimbursable Space Act Agreement between the National Aeronautics and Space Administration, Ames Research Center and Rigetti Computing to Asses a Gate-Based Quantum Computing Processor for Meeting Complex Computing Challenges	2/28/2017	2/28/2022	Non-Reimbursable	\$129,036 ARC	SAA2-403167
21	4 25069	IAI North America	Nonreimbursable Space Act Agreement between IAI North America and the National Aeronautics and Space Administration, Ames Research Center for Unmanned Aircraft Systems Traffic Management	2/3/2017	2/3/2022	Non-Reimbursable	\$100,162 ARC	SAA2-403233
21	5 25006	GoPro, Inc.	Nonreimbursable Space Act Agreement between GoPro, Inc. and the National Aeronautics and Space Administration, Ames Research Center for Unmanned Aircraft Systems Traffic Management	1/26/2017	1/26/2022	Non-Reimbursable	\$100,162 ARC	SAA2-403190

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216	6 24991	Uber Technologies, Inc.	Nonreimbursable Space Act Agreement between Uber Technologies, Inc. and the National Aeronautics and Space Administration, Ames Research Center for Unmanned Aircraft Systems Traffic Management	1/26/2017	1/26/2022	Non-Reimbursable	\$100,162	ARC	SAA2-403231
217	7 24921	H211, LLC	Nonreimbursable Space Act Agreement between the National Aeronautics and Space Administration, Ames Research Center and H211, LLC for Earth Observations in Support of Air Pollution and Climate Change Research	1/17/2017	1/17/2022	Non-Reimbursable	\$1,243,691	ARC	SAA2-403236
218	3 24749	STRATOLAUNCH SYSTEMS CORF	PAnnex One to the Reimbursable Umbrella Space Act Agreer	r 12/6/2016	12/6/2021	Reimbursable		ARC	SAA2-403221-1
219	24748	Stratolaunch Systems Corporation	Reimbursable Umbrella Space Act Agreement between the	N 12/6/2016	12/6/2021	Reimbursable		ARC	SAA2-403221
220	24643	AT&T Government Solutions	Annex One to the Nonreimbursable Umbrella Space Act Agreement between the National Aeronautics and Space Administration, Ames Research Center and AT&T Government Solutions for Unmanned Aerial Systems Traffic Management	10/26/2016	10/26/2021	Non-Reimbursable	\$22,039	ARC	SAA2-403109-1

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2	221 24548	AT&T Government Solutions	Nonreimbursable Umbrella Space Act Agreement between the National Aeronautics and Space Administration, Ames Research Center and AT&T Government Solutions for Unmanned Aerial Systems Traffic Management	10/26/2016	10/26/2021	Non-Reimbursable	\$0 ARC	SAA2-403109
2	222 24366	The City of Charlotte	Non-Reimbursable Space Act Agreement with the City of Charlotte, Charlotte Douglas International Airport for Laboratory Space and Data Sharing	10/5/2016	5/5/2023	Non-Reimbursable	\$7,500 ARC	SAA2-403163
2	223 22051	American Airlines, Inc.	Nonreimbursable Space Act Agreement between the National Aeronautics and Space Administration, Ames Research Center and American Airlines, Inc. for Human Factors Fatigue Research	1/5/2016	11/5/2021	Non-Reimbursable	\$677,303 ARC	SAA2-403013
2	224 17091	CITY OF SUNNYVALE	Lease Agreement - Sunnyvale Golf Course	5/24/2002	5/24/2022	Reimbursable	ARC	SAA2-401308
2	225 16543	UNIVERSITY OF CINCINNATI	Nonreimbursable Umbrella Space Act Agreement between U	J11/6/2013	11/6/2023	Non-Reimbursable	ARC	SAA2-402808

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2	226 1	15238	US Airways, Inc.	Nonreimbursable Space Act Agreement Between US Airway	/: 4/23/2013	9/23/2022	Non-Reimbursable		ARC	SAA2-402733
2	227 4	4900	AMES CHILD CARE CENTER	Nonreimbursable Space Act Agreement Between NASA Am	s 5/19/2005	12/31/2022	Non-Reimbursable		ARC	SAA2-401816
2	228 3	35263	Space Exploration Technology Corp	2624 Payload Attach Fitting Model Testing (Annex No. 1)	9/21/2021	9/21/2022	Reimbursable		GRC	SAA3-1708-1
2	229 3	35262	Space Exploration Technologies Cor	SPACEFLIGHT AND SPACEFLIGHT HARDWARE RELATE	E 9/21/2021	9/21/2026	Reimbursable		GRC	SAA3-1708
2	230 3	35018	AURA Network Systems	Annex 2 to Advanced Air Mobility Technology Research and Demonstration Activities with AURA Network Systems (2021 ARMD ACO Award)		7/6/2026	Non-Reimbursable	\$650,975	GRC	GRC PAM NO 35018

ROW NO.	PAM ID NUMBER	PARTNER NAME	TITLE/PURPOSE	SIGNATURE DATE	EXPIRATION DATE	TYPE OF AGREEMENT	VALUE FOR CENTER	CENTER TRACKING NUMBER (IF ANY)
2	231 34788	Cleveland State University	System Reliability Models for Revolutionary Vertical Lift Technologies with Cleveland State University	9/13/2021	9/13/2022	Non-Reimbursable	\$7,250 GRC	SAA3-1701
2	32 34557	SPACE EXPLORATION TECHNOL	_C Starlink Modal Testing	5/21/2021	5/21/2022	Reimbursable	GRC	SAA3-1691
2	233 34516	Aerojet Rocketdyne, Inc.	Annex 6 to Upper Stage Engine Manufacturing, Testing, and	7/28/2021	7/28/2022	Reimbursable	GRC	SAA3-1639-6
2	34510	Aerojet Rocketdyne, Inc.	Advanced Electric Propulsion System (AEPS) Power Proces	7/27/2021	11/27/2022	Reimbursable	GRC	SAA3-1639-05
2	235 34340	National Technology and Engineering Solutions of Sandia, LLC	Robust, Autonomous, Fault-Tolerant DC Microgrids	7/21/2021	7/21/2023	Non-Reimbursable	\$503,717 GRC	SAA3-1690

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	236 34317	UNIVERSITY OF NOTRE DAME	Collaborative Research for Fan Noise Generation and Propagation on Advanced Noise Control Fan (ANCF)	5/26/2021	5/26/2026	Non-Reimbursable	\$80,095 GRC	SAA3-1688
	237 33997	The SMART Tire Company, LLC	Shape Memory Alloy Modeling and Development with Smart	4/11/2021	4/11/2023	Reimbursable	GRC	SAA3-1679
:	238 33936	JumpStart, Inc.	Commercialization of NASA GRC Technology Efforts with JumpStart, Inc.	4/1/2021	4/1/2026	Non-Reimbursable	\$43,342 GRC	SAA3-1678
	239 33919	Greater Cleveland Partnership	COMPASS Study for Wi-Fi Communications Assessment (Greater Cleveland Partnership)	2/4/2021	2/4/2022	Non-Reimbursable	\$95,405 GRC	SAA3-1677
	240 33851	Space Exploration Technologies Co	or Rideshare Dispenser Modal Test	2/8/2021	2/8/2022	Reimbursable	GRC	SAA3-1676

ROW NO.	PAM ID NUMBER	PARTNER NAME	TITLE/PURPOSE	SIGNATURE DATE	EXPIRATION DATE	TYPE OF AGREEMENT	CENTER CENTER	CENTER TRACKING NUMBER (IF ANY)
2	241 33599	Acree Technologies, Inc.	High Temperature Sensors for Advanced Combustion Turbir	4/30/2021	4/30/2022	Reimbursable	GRC	SAA3-1674
2	242 33534	The Ohio State University	In-Situ 3-D Printing of Wireless Implant with The Ohio State University	12/2/2020	12/2/2022	Non-Reimbursable	\$31,189 GRC	SAA3-1670
2	243 33465	Emerson Climate Technologies, Inc	. Gas Bearing Subject Matter Expertise for Emerson, USA	3/8/2021	3/8/2022	Non-Reimbursable	\$5,697 GRC	SAA3-1671
2	244 33443	ZIN TECHNOLOGIES, INC	Annex No. 03 to SAA3-1662 for Use of Thermal Vacuum Lat	:12/10/2020	12/10/2023	Reimbursable	GRC	SAA3-1662-03
2	245 33050	Amazon.Com Services, LLC.	Annex No. 1 under SAA3-1663 Electric Propulsion Thruster (	1/5/2021	1/5/2022	Reimbursable	GRC	SAA3-1663-01

ROW NO.	PAM ID NUMBER	PARTNER NAME	TITLE/PURPOSE	SIGNATURE DATE	EXPIRATION DATE	TYPE OF AGREEMENT	VALUE FOR CENTER	CENTER TRACKING NUMBER (IF ANY)
24	6 33049	Amazon.Com Services, LLC.	Spacecraft Electric Propulsion Component Development, Ma	1/5/2021	1/5/2026	Reimbursable	GRC	SAA3-1663
24	7 33024	CesiumAstro, Inc.	SmallSat Ka-band Operations User Terminal (SKOUT) Flight Experiments with CesiumAstro	12/2/2020	12/2/2025	Non-Reimbursable	\$150,568 GRC	SAA3-1664
24	8 32831	Ozark Integrated Circuits Inc.	Fabrication of SiC Integrated Circuits for a Multi-Chip Microp	11/2/2020	11/2/2023	Reimbursable	GRC	SAA3-1661
24	9 32535	ZIN TECHNOLOGIES, INC	Use of Unique NASA Facilities: Electromagnetic Interference	8/12/2020	8/12/2023	Reimbursable	GRC	SAA3-1662-1
25	50 32534	ZIN TECHNOLOGIES, INC	Use of Unique NASA Facilities (EMI Lab, SDL, TVAC)	8/11/2020	8/11/2025	Reimbursable	GRC	SAA3-1662

ROW NO.	PAM ID NUMBER	PARTNER NAME	TITLE/PURPOSE	SIGNATURE DATE	EXPIRATION DATE	TYPE OF AGREEMENT		CENTER TRACKING NUMBER (IF ANY)
25	32526	Emergency Products and Research Inc.	, COVID-19: Technical Expertise and Test Data Analysis for Emergency Products and Research, Inc.	4/24/2020	4/24/2022	Non-Reimbursable	\$52,368 GRC	SAA3-1654
25	2 32398	University Hospitals of Cleveland	COVID-19 Sterilization of Personal Protective Equipment	4/2/2020	4/2/2022	Non-Reimbursable	\$81,654 GRC	SAA3-1653
25	3 32206	CASE WESTERN RESERVE UNIVERSITY	A Systematic Data-Analytics Approach to the Design of Interface-Rich Materials	4/15/2021	4/15/2023	Non-Reimbursable	\$21,455 GRC	SAA3-1681
25	32178	GENERAL ELECTRIC COMPANY	High Temperature Testing of Additive Heat Pipes	11/2/2020	11/2/2021	Non-Reimbursable	\$7,367 GRC	SAA3-1659
25	5 32160	Aerojet Rocketdyne, Inc.	Annex No. 2 under SAA3-1639 to Upper Stage Engine Manu	10/16/2020	10/16/2021	Reimbursable	GRC	SAA3-1639-2

ROW NO.	PAM ID NUMBER	PARTNER NAME	TITLE/PURPOSE	SIGNATURE DATE	EXPIRATION DATE	TYPE OF AGREEMENT	VALUE FOR CENTER	CENTER TRACKING NUMBER (IF ANY)
	256 32093	HONEYWELL INTERNATIONAL, I	N(Honeywell CLEEN-II Testing in Glenn Advanced Subsonic C	12/2/2020	12/2/2025	Reimbursable	GRC	SAA3-1675
	257 31980	BLUE ORIGIN, LLC	Demonstration of Pre-Environmental Testing of Fairing Com	8/7/2020	8/7/2022	Reimbursable	GRC	SAA3-1609-2
	258 31604	Epic Aircraft , LLC	Ice Protection System Development Activities for Epic Aircra	3/2/2020	3/2/2022	Reimbursable	GRC	SAA3-1650
	259 31589	Southwest Research Institute	Great Horned Owl Demonstration and Validation Program with Southwest Research Institute	5/13/2020	5/13/2023	Non-Reimbursable	\$21,468 GRC	SAA3-1658
	260 31584	The Charles Stark Draper Laborato	ory Collaborative Development of High Temperature SiC Electro	1/15/2020	1/15/2022	Reimbursable	GRC	SAA3-1646

ROW NO.	PAM ID NUMBER	PARTNER NAME	TITLE/PURPOSE	SIGNATURE DATE	EXPIRATION DATE	TYPE OF AGREEMENT	COMULATIVE DOLLAR CENTER	CENTER TRACKING NUMBER (IF ANY)
2	261 31550	Scott Schlessman	Farmer Lease for Agricultural Purpose Parcel K	4/15/2019	4/14/2024	Reimbursable	GRC	PBS2019SS004
2	262 31546	Rockwell Farms LLC	Farmer Lease for Agricultural Purposes Parcel M	4/15/2019	4/14/2024	Reimbursable	GRC	PBS2019RF005
2	63 31544	Krueger Farms, LLC	Farmer Lease for Agricultural Purposes Parcel C	4/15/2019	4/14/2024	Reimbursable	GRC	PBS2019KF001
2	264 31542	David & Mary K. Schlessman	Farmer Lease for Agricultural Purposes Parcel J	4/15/2019	4/14/2024	Reimbursable	GRC	PBS2019DM003
2	265 31540	DMS Farms, LTD	Farmer Lease for Agricultural Purposes Parcel G	4/15/2019	4/14/2024	Reimbursable	GRC	PBS2019DM002

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	266 31423	UNIVERSITY OF PITTSBURGH	Calculation of EBC thermodynamics properties from machine learning-derived atomistic potentials	10/26/2020	10/26/2021	Non-Reimbursable	\$12,144 GRC	SAA3-1668
	267 31407	OHIO DEPARTMENT OF NATURAL RESOURCES	A Series of Public Deer Hunts at Plum Brook Station	11/15/2019	11/15/2024	Non-Reimbursable	\$167,603 GRC	SAA3-1632
	268 31374	GE Research	COLLABORATIVE DEVELOPMENT OF FINITE ELEMENT HPC MULTISCALE MODELING FRAMEWORK	4/30/2020	4/30/2024	Non-Reimbursable	\$157,736 GRC	SAA3-1656
	269 31344	GREAT LAKES SCIENCE CENTER	The Official NASA Glenn Visitor Center	9/30/2019	9/30/2029	Non-Reimbursable	\$0 GRC	SAA3-1630
	270 31247	Terves Inc.	Technical Expertise Space Act Agreement for Terves, LLC.	12/10/2019	12/10/2021	Non-Reimbursable	\$7,099 GRC	SAA3-1643

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2	271 31246	Applied Sciences, Inc.	Technical Expertise Space Act Agreement for Applied Sciences	11/6/2019	11/6/2021	Non-Reimbursable	\$6,960 GRC	SAA3-1638
2	272 31245	SafeLi Materials	Technical Expertise Space Act Agreement for SafeLi Materials	10/29/2019	10/29/2021	Non-Reimbursable	\$6,910 GRC	SAA3-1635
2	273 31132	Acme Express, Inc.	Technical Expertise Space Act Agreement for Acme Express, Inc.	10/19/2019	10/19/2021	Non-Reimbursable	\$7,122 GRC	SAA3-1633
2	274 31055	Launchspace Technologies Corpor	at Aerogel Material for Orbital Debris Capture	4/30/2020	4/30/2022	Reimbursable	GRC	SAA3-1655
2	275 30756	Aerojet Rocketdyne, Inc.	Upper Stage Engine Manufacturing, Testing, and Evaluation	11/18/2019	11/18/2024	Reimbursable	GRC	SAA3-1639

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	276 30392	Rocky River Watershed Council	Restoring Lower Abram Creek at NASA Glenn Research Center	6/24/2019	6/24/2024	Non-Reimbursable	\$3,302 GRC	SAA3-1615
	277 30296	ANSYS Inc.	Collaboration on Icing Simulation Software Development	1/27/2020	1/27/2024	Non-Reimbursable	\$114,343 GRC	SAA3-1647
	278 30295	THE BOEING COMPANY	Collaborative Icing Research, Simulation Tool Development and Testing Opportunities	3/12/2020	3/12/2023	Non-Reimbursable	\$59,152 GRC	SAA3-1652
	279 30155	United Technologies Corporation	HEATheR Thermal Management Systems Modeling	1/13/2020	1/13/2022	Non-Reimbursable	\$8,655 GRC	SAA3-1645
	280 30133	CEDAR POINT AMUSEMENT PARK	Math and Science Week Events at Cedar Point Amusement Park	5/20/2019	5/20/2022	Non-Reimbursable	\$66,429 GRC	SAA3-1611

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29	31 29849	GENERAL ATOMICS AERONAUTIO	Ice Shape Investigations for General Atomics	5/13/2019	10/25/2021	Reimbursable		GRC	SAA3-1607
28	32 29566	A and P Technology, Inc.	Dynamic Energy Absorption in Braided Composite Materials with A and P Technology, Inc.	6/11/2019	6/1/2024	Non-Reimbursable	\$276,623	GRC	SAA3-1612
28	33 29559	LOCKHEED MARTIN	Combined-Cycle Engine Large-scale Inlet Mode Transition (CCE-LIMX) CFD Studies	4/2/2019	4/2/2022	Non-Reimbursable	\$17,080	GRC	SAA3-1601
28	34 29551	SureFly, Inc.	Acoustic Measurements on electrified Vertical Take-Off and Landing Urban Air Mobility Vehicle with SureFly, Inc.	8/16/2019	8/16/2024	Non-Reimbursable	\$354,701	GRC	SAA3-1597
29	35 29243	Orleans Niagara Board of Cooperative Educational Services	High School Students United with NASA to Create Hardware (HUNCH)	7/14/2017	7/14/2022	Non-Reimbursable	\$149,717	GRC	SAA3-1520

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2	36 28854	California Institute of Technology	Failure Analysis of Modified Environmental Barrier Coatings (EBC)	3/6/2019	3/6/2022	Non-Reimbursable	\$14,614 GRC	SAA3-1599
2	37 28821	Ozark Integrated Circuits, Inc.	Testing of Extreme High Temperature Capable SiC Integrate	10/22/2018	10/22/2021	Reimbursable	GRC	SAA3-1581
2	38 28651	UNIVERSITY OF CINCINNATI	HABSat-2 – Harmful Algal Bloom Satellite 2 with the University of Cincinnati	6/11/2019	12/31/2023	Non-Reimbursable	\$145,450 GRC	SAA3-1613
2	39 28638	GENERAL ELECTRIC COMPANY	Electrified Aircraft Propulsion (EAP) Powertrain Component Testing	9/14/2018	2/28/2022	Non-Reimbursable	\$1,963,492 GRC	SAA3-1573
2	90 28235	Textron Aviation, Inc.	Ice Protection System Development Activities for Textron Av	i 2/27/2019	2/27/2022	Reimbursable	GRC	SAA3-1598

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2	91 28214	ROLLS-ROYCE CORP	Silicon Carbide Fiber High Temperature Characterization	1/14/2020	1/14/2024	Reimbursable	GRC	SAA3-1606-1
2	92 28213	ROLLS-ROYCE CORP	Testing and Analysis of Advanced Turbine Engine Materials,	1/14/2020	1/14/2025	Reimbursable	GRC	SAA3-1606
2	93 28172	BLUE ORIGIN, LLC	Environmental Testing for Fairing Deployment at Plum Brook	5/20/2019	5/20/2024	Reimbursable	GRC	SAA3-1609-1
2	94 28171	BLUE ORIGIN, LLC	Environmental Testing at Plum Brook Station	5/20/2019	5/20/2024	Reimbursable	GRC	SAA3-1609
2	95 28028	The Boeing Company	High Ice Water Content Radar II Flight Campaign Support	5/13/2019	5/13/2022	Non-Reimbursable	\$17,750 GRC	SAA3-1608

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	296 27738	GENERAL ELECTRIC COMPANY	GE Aviation Low Pressure Ratio Fan and Inlet Technology T	6/26/2019	6/26/2022	Reimbursable	GRC	SAA3-1587
	297 27606	THE BOEING COMPANY	Shape Memory Alloy Reconfigurable Technology - Vortex Generator (SMART-VG) with The Boeing Company	12/6/2018	12/6/2021	Non-Reimbursable	\$184,268 GRC	SAA3-1589
	298 27430	WOODWARD FST, INC	Fundamental Testing of Advanced SV-LDI Low-Emissions Fuel-Air Mixers	10/22/2018	10/22/2021	Non-Reimbursable	\$287,914 GRC	SAA3-1580
	299 27174	GENERAL ELECTRIC COMPANY	GE Low Pressure Ratio Fan Test	3/28/2019	3/28/2024	Non-Reimbursable	\$5,452,479 GRC	SAA3-1588
	300 26982	Kettering City Schools	NASA HUNCH (High school students United with NASA to Create Hardware)	3/14/2018	3/14/2023	Non-Reimbursable	\$97,136 GRC	SAA3-1545

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3	26825	ASM INTERNATIONAL	Material Data Management Consortium with ASM Internation	3/27/2018	3/27/2022	Reimbursable	GRC	SAA3-1550
3	302 26750	The University of Tulsa	Cognitive Multiple User Free Space Optical Link Study - TU	1/7/2018	1/7/2022	Non-Reimbursable	\$17,702 GRC	SAA3-1532
3	26450	Genesee Valley Educational Partnership	NASA HUNCH (High school students United with NASA to Create Hardware)	5/6/2018	5/6/2023	Non-Reimbursable	\$97,136 GRC	SAA3-1564
3	26343	J.I. Case High School	NASA HUNCH (High school students United with NASA to Create Hardware)	3/14/2018	3/14/2023	Non-Reimbursable	\$91,486 GRC	SAA3-1547
3	26342	North Ridgeville High School	NASA HUNCH (High school students United with NASA to Create Hardware)	3/27/2018	3/27/2023	Non-Reimbursable	\$97,136 GRC	SAA3-1554

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	306 26341	PLATTEVILLE HIGH SCHOOL	NASA HUNCH (High school students United with NASA to Create Hardware)	4/22/2018	4/22/2023	Non-Reimbursable	\$92,620 GRC	SAA3-1560
:	307 25538	Cattaraugus-Allegany Board of Cooperative Educational Services	NASA HUNCH (High school students United with NASA to Create Hardware)	3/27/2018	3/27/2023	Non-Reimbursable	\$91,486 GRC	SAA3-1553
	308 25289	East Troy Community School District	NASA HUNCH (High school students United with NASA to Create Hardware)	3/14/2018	3/14/2023	Non-Reimbursable	\$92,620 GRC	SAA3-1546
	309 24838	Global Energy Corporation	Development and Testing of a High Power Space Generator	1/7/2018	1/7/2023	Reimbursable	GRC	SAA3-1529
;	310 24459	ZIN TECHNOLOGIES, INC	Use of Unique NASA Facilities (EMI Lab, TSC, 1K Clean roo	3/5/2018	3/5/2023	Reimbursable	GRC	SAA3-1539

ROW NO.	PAM ID NUMBER	PARTNER NAME	TITLE/PURPOSE	SIGNATURE DATE	EXPIRATION DATE	TYPE OF AGREEMENT	VALUE FOR CENTER	CENTER TRACKING NUMBER (IF ANY)
3′	1 23430	American Technical Coatings, Inc.	Ballistic Radome Development	5/11/2017	9/30/2021	Reimbursable	GRC	SAA3-1513
3.	2 22817	Pennsylvania State University Applied Research Laboratory	High-Speed Gear Studies	11/29/2016	11/29/2021	Non-Reimbursable	\$431,929 GRC	SAA3-1495
31	3 22356	Orbital Sciences Corporation	NASA Research Announcement: NNH15ZOA001N: Public Private Partnership for Robotic In-Space Manufacturing and Assembly of Spacecraft and Space Structures	10/3/2016	10/3/2021	Non-Reimbursable	\$131,737 GRC	SAA3-1491
3′	4 21691	Hathaway Brown School	STEM Collaboration with Hathaway Brown School	4/25/2016	4/25/2022	Reimbursable	GRC	SAA3-1466
3-	5 21329	Case Western Reserve University	Development of Real-Time Particulate and Toxic-Gas Senso	11/20/2015	4/25/2022	Reimbursable	GRC	SAA3-1435

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	316 20864	Lewis Little Folks, Incorporated	Lewis Little Folks Space Act Agreement	7/11/2017	7/11/2022	Non-Reimbursable	\$493,128 GRC	SAA3-1494
	317 20780	Friends of NASA Plum Brook Station, LLC	Plum Brook Station Entry Monument Sign	3/19/2018	3/19/2023	Non-Reimbursable	\$5,452 GRC	SAA3-1544
	318 35013	Bishop McNamara High School	NASA CONNECTORS (Connecting Hight School Students to Reasearchers)	8/24/2021	8/23/2023	Non-Reimbursable	\$70,100 GSFC	
	319 34656	GEORGE WASHINGTON UNIVERSITY	Joint Collaborative Framework for Astrophysical Studies	10/27/2021	10/26/2026	Non-Reimbursable	\$51,200 GSFC	NASA-GWU-34656
	320 34562	The University of Maryland	AUGMENTED REALITY AND VIRTUAL REALITY PROGRAM DEVELOPMENT	7/1/2021	7/1/2023	Non-Reimbursable	\$16,800 GSFC	SAA5-21-2-N34562

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321	34265	University of Maryland Eastern Shore	Space Exploration, Science and Engineering Research, Business, Computer Science, and STEM Initiatives	9/24/2021	9/23/2026	Non-Reimbursable	\$8,211	GSFC	GSFC-21-34265
322	34264	University of Maryland Eastern Shore	Space Exploration, Science and Engineering Research, Business, Computer Science and Stem Inititatives	9/23/2021	9/23/2026	Non-Reimbursable	\$0	GSFC	GSFC-21-34264 NRSAA Umbrella
323	34065	UNITED LAUNCH ALLIANCE, LLC	Annex 4 to ULA Umbrella with Annexes for launch vehicle so	ı 6/7/2021	6/7/2026	Reimbursable		GSFC	450-AGMT-0180
324	34064	UNITED LAUNCH ALLIANCE, LLC	Annex 3 to ULA Umbrella with Annexes for launch vehicle so	ı 6/7/2021	6/7/2026	Reimbursable		GSFC	450-AGMT-0180
325	34061	UNITED LAUNCH ALLIANCE, LLC	Annex 2 to ULA Umbrella with Annexes for launch vehicle so	ı 6/11/2021	6/11/2026	Reimbursable		GSFC	450-AGMT-0180

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320	34020	UNITED LAUNCH ALLIANCE, LLC	Annex 1 under the ULA Umbrella for launch vehicle support	(6/8/2021	6/8/2026	Reimbursable		GSFC	450-AGMT-0180
327	34019	UNITED LAUNCH ALLIANCE, LLC	ULA Umbrella with Annexes for launch vehicle support	6/8/2021	6/8/2026	Reimbursable		GSFC	450-AGMT-0180
328	3 33729	Prince George's County, Maryland	Facilitation of Commercial Utilization of NASA Technologies for Medical Applications	1/19/2021	1/18/2023	Non-Reimbursable	\$23,000	GSFC	SAA5-2021-1- N33729
329	33525	International High School at Largo	Dissemination of NASA Technologies for Educational Entrepreneurship and Commercialization Studies by Students	4/30/2021	4/30/2024	Non-Reimbursable	\$10,500	GSFC	
330	33419	LightWave Logic Inc.	Collaboration on Ultra-Wide Band (UWB) Antenna-Coupled Electro-Optic Modulator (EOM)	11/16/2020	11/16/2021	Non-Reimbursable	\$165,000	GSFC	SAA5-20-4-N33419

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33	1 33416	Maryland Technology Development Corporation	Economic Development	11/1/2020	11/1/2023	Non-Reimbursable	\$61,400 GSFC	SAA5-2020-33416
33	2 33369	Federal Business Council	Collaboration on Cybersecurity Awareness	1/27/2021	1/27/2026	Non-Reimbursable	\$25,000 GSFC	SAA5-20-4-N33369
33	3 33198	CORNELL UNIVERSITY	Cornell University for Collaborative Exploration and Engineering for Thermal Design, Flight Dynamics and Robotic Sample	10/21/2020	10/21/2022	Non-Reimbursable	\$346,000 GSFC	
33	4 32951	Telophase Corporation	Transfer of Sensing Technologies for Development of a Prototype Rapid Testing Breathalyzer	1/26/2021	1/26/2023	Non-Reimbursable		SAA5-2021-1- A32950
33	5 32950	Telophase Corporation	Rapid Detection of Changing Bio-signatures from Existing Pathogens or New Virus Profiles	1/15/2021	1/14/2024	Non-Reimbursable		SAA5-2021-1- U32950

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	336 32893	L.Garde, Inc.	Development Inflatable Communication Antenna Structures using Green Carbon Foams	4/20/2021	4/20/2024	Non-Reimbursable	\$108,100 GSFC	SAA5-20-4-N32893
	337 32879	JOHNS HOPKINS UNIVERSITY / A	AFAUGMENTED REALITY AND VIRTUAL REALITY DEVELOR	8/13/2010	8/13/2023	Non-Reimbursable	GSFC	SAA5-20-3-N32879
	338 32803	Orbit Fab, Inc	Grapple Fixture Evaluation	3/5/2021	3/4/2022	Non-Reimbursable	\$39,000 GSFC	
	339 32802	HONEYBEE ROBOTICS, LTD	Grapple Fixture Evaluation	11/15/2020	11/14/2022	Non-Reimbursable	\$39,000 GSFC	
	340 32725	University of Texas at Austin	annex to Outreach for Space Operations and Mission Problems	10/15/2020	6/8/2025	Non-Reimbursable		SAA5-20-3-N32725- A2

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34	1 32661	Maryland Department of the Environment	Supporting Shellfish Aquaculture in the Chesapeake Bay using Artificial Intelligence to Detect Poor Water Quality through Sampling and Remote Sensing	6/17/2021	6/17/2023	Non-Reimbursable	\$231,000 GSFC	NASA-MDE-32661
342	2 32654	Altius Space Machines, Inc	Grapple Fixture Evaluation	10/6/2020	10/5/2022	Non-Reimbursable	\$39,000 GSFC	
343	3 32490	THE UNIVERSITY OF NORTH TEXAS	AUGMENTED REALITY AND VIRTUAL REALITY DEVELOPMENT FOR NASA SCIENCE AND ENGINEERING	6/10/2020	6/10/2023	Non-Reimbursable	\$16,800 GSFC	SAA5-20-3-N32490
344	4 31812	University of Texas at Austin	Outreach for Space Operations and Mission Problems	6/8/2020	6/7/2025	Non-Reimbursable	\$56,859 GSFC	31811
34	5 31811	University of Texas at Austin	Outreach for Space Operations and Mission Problems	6/8/2020	6/7/2025	Non-Reimbursable	\$0 GSFC	

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	346 31605	Earth Networks, Inc.	INFORMATION AND DATA EXCHANGE RELATED TO THE GLOBE PROGRAM	4/29/2020	4/29/2025	Non-Reimbursable	\$17,600 GSFC	SAA5-20-2-N31605
	347 31591	UNIVERSITY OF MARYLAND COLLEGE PARK	AUGMENTED REALITY AND VIRTUAL REALITY DEVELOPMENT FOR NASA SCIENCE AND ENGINEERING	9/24/2020	9/24/2023	Non-Reimbursable	\$16,800 GSFC	SAA5-20-1-N31591
	348 31191	NORTHROP GRUMMAN	ACCESS AND USE OF GSFC ENVIRONMENTAL TEST AN	6/16/2020	6/15/2025	Reimbursable	GSFC	SAA5-19-4-R31191
	349 31175	Walgreen Company	NASA GSFC Non-Occupational fee-based influenza clinic	11/12/2019	11/12/2024	Non-Reimbursable	\$420,000 GSFC	
	350 31033	Women's National Basketball Players Association	COLLABORATION ON AWARENESS OF NASA TECHNOLOGIES FOR ENTREPRENEURIAL OPPORTUNITIES	10/3/2019	10/3/2022	Non-Reimbursable	\$112,500 GSFC	SAA5-19-4-N31033

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	351	30946	NORTHROP GRUMMAN	Fiber Optic Cable Testing Activities	8/18/2020	2/17/2022	Reimbursable	GSFC	SAA5-2020-1-R3094(
	352	30569	THE JOHNS HOPKINS UNIVERSIT	「YFabricating cryogenic detectors for cosmic microwave backg	9/18/2019	1/23/2022	Reimbursable	GSFC	SAA5-19-4-R30569
	353	30478	THE TRUSTEES OF COLUMBIA U	N Development of Teaching Activities	8/29/2019	8/28/2024	Reimbursable	GSFC	CU-NASA-30478
	354	29854	Ball Aerospace and Technology Co	rp HIGH ACCURACY, CRYOGENIC, REFRACTIVE INDEX ME	5/16/2019	10/26/2021	Reimbursable	GSFC	SAA5-2019-2-R29854
	355	29833	DIGITALGLOBE, INC	CONJUNCTION ASSESSMENT SCREENING SERVICES	9/11/2019	9/11/2024	Reimbursable	GSFC	SAA5-19-2-R-29833

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356	29494	SPACE TELESCOPE SCIENCE INSTITUTE	Loan of Touch Screen System for Display of Science Information	2/13/2019	2/1/2023	Non-Reimbursable	\$3,000	GSFC	29494
357	29201	National Basketball Players Association	COLLABORATION ON AWARENESS OF NASA TECHNOLOGIES FOR ENTREPRENEURIAL OPPORTUNITIES	4/30/2019	4/30/2022	Non-Reimbursable	\$112,600	GSFC	SAA5-19-1-N29201
358	28411	National Basketball Retired Players Association	COLLABORATION ON AWARENESS OF NASA TECHNOLOGIES FOR ENTREPRENURIAL OPPORTUNITIES	9/14/2018	9/14/2023	Non-Reimbursable	\$112,600	GSFC	SAA5-18-3-N28411
359	25933	INSTITUTE FOR LOCAL INNNOVATIONS, INC	IDENTIFYING AND ESTABLISHING TECHNOLOGY TRANSFER OPPORTUNITIES AND COLLABORATIONS	10/2/2017	10/2/2022	Non-Reimbursable	\$8,700	GSFC	SAA5-17-3-N25933
360	25689	National Football League Players Association	COLLABORATION TO COMMERCIALIZE NASA TECHNOLOGIES	5/15/2018	5/13/2025	Non-Reimbursable	\$274,400	GSFC	SAA5-2017-3- N25689

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361	24841		Editor-in-Chief for Journal of Astronomical Telescopes, Instruments and Systems	1/24/2017	1/23/2023	Non-Reimbursable	\$34,066	GSFC	600-17-24841
362	24469		THE PRODUCTION OF NASA THEMED SCIENCE FICTION FILM CONCEPTS	1/23/2017	1/23/2022	Non-Reimbursable	\$8,700	GSFC	SAA5-17-1-N24469
363	23781	Arizona Board of Regents for and be	Mars Atmospheric Infrared Data Analysis	6/27/2017	3/30/2023	Reimbursable		GSFC	23781
364	23698	Rrigham Valing Hailyareity	ON-ORBIT RADIATION HARDENED BY SOFTWARE TECHNOLOGY RESEARCH	2/13/2017	2/13/2022	Non-Reimbursable	\$10,519	GSFC	SAA5-16-03-N23698
365	22549	Wilmington	IMPLEMENTATION AND OPERATION OF THE SUSTAINED OCEAN COLOR OBSERVATIONS WITH NANOSATELLITES (SOCON) PROJECT	6/1/2017	6/1/2022	Non-Reimbursable	\$160,000	GSFC	450-AGMT-0149

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	366 22332	LAWRENCE LIVERMORE NATIONAL SECURITY, LLC	Space-Based Measurements for Applied and General Research in Earth Science	12/6/2018	12/5/2021	Non-Reimbursable	\$789,654 GSFC	600-18-22332-LLNL
3	367 18544	Virginia Commercial Space Flight Authority	Construction and Operation of Unmanned Aerial System (UAS) Runway on Wallops Island	10/1/2015	3/31/2022	Non-Reimbursable	\$5,715,055 GSFC	
	368 14465	Simons Foundation	Origins of Life Studies	4/30/2013	9/30/2023	Reimbursable	GSFC	SAA-13-14465
3	34711	City of Orlando	annex to Advanced Air Mobility Technology Research and Demonstration Activities	5/7/2021	5/7/2026	Non-Reimbursable	\$250,000 HQ-ARMD_S	
3	34710	City of Orlando	Advanced Air Mobility Technology Research and Demonstration Activities	5/7/2021	5/7/2027	Non-Reimbursable	\$0 HQ-ARMD_S	

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3	34709	Massachusetts Department of Transportation	annex to Advanced Air Mobility Technology Research and Demonstration Activities	5/7/2021	5/7/2026	Non-Reimbursable	\$250,000 HQ-ARMD_S	
3	34708	Massachusetts Department of Transportation	Advanced Air Mobility Technology Research and Demonstration Activities	5/7/2021	5/7/2026	Non-Reimbursable	\$0 HQ-ARMD_S	
3	34706	Minnesota Department of Transportation	annex to Advanced Air Mobility Technology Research and Demonstration Activities	5/7/2021	5/7/2026	Non-Reimbursable	\$250,000 HQ-ARMD_S	
3	34705	Minnesota Department of Transportation	Advanced Air Mobility Technology Research and Demonstration Activities	5/7/2021	5/7/2026	Non-Reimbursable	\$0 HQ-ARMD_S	
3	34704	North Central Texas Council of Governments	annex to Advanced Air Mobility Technology Research and Demonstration Activities	5/7/2021	5/7/2026	Non-Reimbursable	\$250,000 HQ-ARMD_S	

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	34701	North Central Texas Council of Governments	Advanced Air Mobility Technology Research and Demonstration Activities	5/7/2021	5/7/2026	Non-Reimbursable	\$0 HQ-ARMD_S	
	377 34686	Ohio Department of Transportation	annex to Advanced Air Mobility Technology Research and Demonstration Activities	5/7/2021	5/7/2026	Non-Reimbursable	\$250,000 HQ-ARMD_S	
	378 34682	Ohio Department of Transportation	Advanced Air Mobility Technology Research and Demonstration Activities	5/7/2021	5/7/2026	Non-Reimbursable	\$0 HQ-ARMD_S	
	379 29333	Evergreen Exhibitions	Above and Beyond Touring Exhibit	3/29/2019	3/28/2024	Non-Reimbursable	\$10,109 HQ-ARMD_S	
	35270	The Center of Science and Industry	NRSAA Between NASA and COSI for Delivering STEM Engagement to Underserved Youth Across the Nation	10/25/2021	10/25/2026	Non-Reimbursable	\$17,187 HQ-Education	r

ROW NO.	PAM ID NUMBER	PARTNER NAME	TITLE/PURPOSE	SIGNATURE DATE	EXPIRATION DATE	TYPE OF AGREEMENT	WALLE LAD	CENTER TRACKING NUMBER (IF ANY)
3	34122	Gearbox Labs, Inc.	For K-12 STEM Engagement and Education	3/30/2021	3/30/2024	Non-Reimbursable	\$9,625 HQ-Education	34122
3	382 34004	Noggin (A subsidiary of Viacom CBS)	Annex 2 Under Umbrella SAA for NASA-Themed STEM Learning Experiences for Preschool-Aged Children and Their Families	12/29/2020	12/29/2021	Non-Reimbursable	\$650 HQ-Education	
3	383 33160	Oak Ridge Associated Universities, Inc.	Annex No. 1 Under Umbrella SAA for Increasing Access to STEM Engagement and STEM Education Opportunities and Experiences	12/15/2020	12/15/2025	Non-Reimbursable	\$54,375 HQ-Education	
	384 33159	Oak Ridge Associated Universities, Inc.	Umbrella SAA for Increasing Access to STEM Engagement and STEM Education Opportunities and Experiences	12/15/2020	12/15/2025	Non-Reimbursable	\$0 HQ-Education	
3	385 33145	Discovery Education, Inc.	Non-Reimbursable Space Act Agreement for K-12 STEM Engagement and Education	11/10/2020	11/10/2025	Non-Reimbursable	\$75,625 HQ-Education	33145

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386	32858	Microsoft Corporation	Annex 9 to Non-Reimbursable Space Act Umbrella Agreement between the National Aeronautics and Space Administration Lyndon B. Johnson Space Center and Microsoft Corporation for Strategic Alliance for STEM Education Activities	8/19/2020	8/19/2022	Non-Reimbursable	\$35,250	HQ-Educatior SAA-AD-18-26048
387	32857	STEM Next Opportunity Fund	Annex 1 Under Umbrella SAA for the STEM Next Million Girls Moonshot Initiative	8/27/2020	8/27/2022	Non-Reimbursable	\$95,500	HQ-Educatior 32856
388	32856	STEM Next Opportunity Fund	Umbrella SAA for Increasing Access to STEM Engagement and STEM Education Opportunities and Experiences	8/27/2020	8/27/2025	Non-Reimbursable	\$0	HQ-Educatior 32856
389	32453	Noggin (A subsidiary of Viacom CBS)	Annex 1 Under Umbrella SAA for Artemis-Themed STEM Learning Experiences for Preschool-Aged Children and Their Families	10/20/2020	10/20/2022	Non-Reimbursable	\$54,500	HQ-Educatior 32453
390	32452	Noggin (A subsidiary of Viacom CBS)	Umbrella SAA for NASA-Themed STEM Learning Experiences for Preschool-Aged Children and Their Families	10/20/2020	10/20/2022	Non-Reimbursable	\$0	HQ-Educatior 32452

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391	31562	U.S. SATELLITE LABORATORY, INC	Annex 1 under Umbrella SAA for Collaboration on the Endeavor Science Teaching Certificate Project	12/18/2019	12/18/2024	Non-Reimbursable	\$100,350	HQ-Educatior
392	31561	U.S. SATELLITE LABORATORY, INC	Umbrella SAA for Collaboration on Endeavor Science Teacher Certificate Project and STEM Engagement Activities	12/18/2019	12/18/2024	Non-Reimbursable	\$0	HQ-Educatior
393	28421	Neuron Fuel Inc. dba Tynker	Annex 1 Under Umbrella SAA for Engaging Students in NASA-Themed Coding Activities	12/20/2018	12/20/2023	Non-Reimbursable	\$56,599	HQ-Educatior 28421
394	28420	Neuron Fuel Inc. dba Tynker	Umbrella SAA for Engaging Students in NASA-Themed Coding Activities	12/20/2018	12/20/2023	Non-Reimbursable	\$0	HQ-Educatior 28420
395	14267	The Conrad Foundation	Conrad Foundation Umbrella	12/13/2013	12/13/2021	Non-Reimbursable		HQ-Educatior SAA-AD-13-14267

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3	396 35525	National Geographic Partners, LLC	Artemis Imagery	9/23/2021	9/23/2026	Non-Reimbursable	\$2,450,000 HQ-HEO_SA	35525
3	34951	Miles Space, Inc.	SCaN Service Support for Team Miles	7/19/2021	7/19/2023	Reimbursable	HQ-HEO_SA	450-AGMT-0185
3	398 27229	RFC MEDIA, LLC	Continued Outreach Collaboration on Third Rock Radio	1/30/2020	1/29/2025	Non-Reimbursable	\$6,473 HQ-OC_SAA	127229
3	399 26840	Google Inc	Annex 2 - Google Virtual Reality for Public Engagement	10/16/2017	10/16/2022	Non-Reimbursable	\$35,470 HQ-OC_SAA	123261
4	100 24182	American Girl Brands, LLC	American Girl Project Collaboration	10/7/2016	10/7/2021	Non-Reimbursable	\$20,560 HQ-OC_SAA	

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4	01 24181	American Girl Brands, LLC	American Girl Collaboration	10/7/2016	10/7/2021	Non-Reimbursable	\$0 HQ-OC_SAA	l24181
4	02 23261	Google Inc	Google Education and Public Engagement Umbrella	9/15/2016	9/14/2024	Non-Reimbursable	\$30,615 HQ-OC_SAA	123261
4	03 22690	Walt Disney Parks and Resorts, U.S., Inc. d/b/a Walt Disney Imagineering	Collaboration on Space-themed Update to Epcot Theme Park	7/31/2017	7/31/2022	Non-Reimbursable	\$22,773 HQ-OC_SAA	122689
4	04 22689	Walt Disney Parks and Resorts U.S., Inc d/b/a Walt Disney Imagineering	Collaboration on Public Outreach Projects	7/31/2017	7/31/2022	Non-Reimbursable	\$0 HQ-OC_SAA	122689
4	05 33335	Arizona State University	Lucy in Space Grade 6-12 Contest	9/23/2020	10/16/2021	Non-Reimbursable	\$40,000 HQ-SMD_SA	

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406	33007	SPACE EXPLORATION TECHNOLOGIES CORP	Flight Safety Coordination with NASA Assets	1/15/2021	1/15/2031	Non-Reimbursable	\$1,836,425	HQ-SMD_SA
407	30620	Mercy Corps	Increasing Smallholder Farmer Resilience to Climate Impacts by Integrating Earth Observations into Mercy Corps AgriFin	8/1/2019	3/29/2022	Non-Reimbursable	\$100,000	HQ-SMD_SA
408	29345	Mercy Corps	Integrating Earth Observations into Mercy Corps' STRESS Methods for Resilience Programming and Intervention Design	3/29/2019	3/29/2022	Non-Reimbursable	\$552,379	HQ-SMD_SA
409	29332	Mercy Corps	Utilizing Earth Observations for Humanitarian and Development Activities	3/29/2019	3/29/2022	Non-Reimbursable	\$0	HQ-SMD_SA
410	26617	Breakthrough Starshot Foundation, LLC	Enceladus Flyby Mission Concept Study	9/13/2018	9/12/2023	Non-Reimbursable	\$72,834	HQ-SMD_SA

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41	1 26616	Breakthrough Starshot Foundation, LLC	Collaboration on Breakthrough Search for Life	9/13/2018	9/12/2023	Non-Reimbursable	\$0 HQ-SMD_SA	
41	2 33818	Orbital ATK, Inc	Small Spacecraft Electric Propulsion (SSEP) System	11/6/2020	11/5/2022	Unfunded	\$998,544 HQ-STMD_S	STMD-SAA-ACO20- 0021
41	3 33812	Rocket Lab USA, Inc	Proposal to the National Aeronautics and Space Administration (NASA) Space Technology Announcement of Collaborative Opportunity	11/6/2020	11/5/2022	Unfunded	\$1,246,814 HQ-STMD_S	STMD-SAA-ACO20- 0009
41	4 33811	Blue Origin, LLC	Increasing Engine Life & Thrust/Weight Through Characterization of Additively Manufactured Alloys	11/6/2020	11/5/2022	Unfunded	\$585,236 HQ-STMD_S	STMD-SAA-ACO20- 0034
41	5 33810	Phase Four, Inc	Lifetime Trend Testing of the Phase Four RF Thruster for Small Spacecraft Missions	11/6/2020	11/5/2022	Unfunded	\$424,161 HQ-STMD_S	STMD-SAA-ACO20- 0056

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416	33809	STELLAR EXPLORATION, INC	Qualification Testing of Nanosatellite Propulsion System	11/6/2020	11/5/2022	Unfunded	\$1,098,460	HQ-STMD_S, STMD-SAA-ACO20- 0041
417	7 33808	AEROJET ROCKETDYNE, INC	A Novel Approach to Human Exploration-Enabling Green Monopropellants for SmallSats	11/6/2020	11/5/2022	Unfunded	\$1,070,000	HQ-STMD_S/0036
418	3 33807	CORNERSTONE RESEARCH GROUP, INC.	Additively Manufactured TPS Arc Jet Evaluation	11/6/2020	11/5/2022	Unfunded	\$897,358	HQ-STMD_S/0038
419	33806	Elementum 3D, Inc	Reactive Additive Manufacturing for Fourth Industrial Revolution Exploration Systems (RAMFIRE)	11/6/2020	11/5/2022	Unfunded	\$1,117,904	HQ-STMD_S/0026
420	33805	SPACE EXPLORATION TECHNOLOGIES CORP	In-flight Imagery and Thermal Measurement of Starship during Orbital Reentry	11/6/2020	11/5/2022	Unfunded	\$1,195,400	HQ-STMD_S, STMD-SAA-ACO20- 0025

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421	33804	Ahmic Aerospace, LLC	Hypersonic Instrumentation and Thermal Protection System Material Characterization Test Methodology	11/6/2020	11/5/2022	Unfunded	\$786,480	HQ-STMD_S, STMD-SAA-ACO20- 22
422	33803	Spacefactory, Inc	Design of an Additive Construction System for Lunar ISRU Application through Active Sample Testing in a Relevant Environment	11/6/2020	11/5/2022	Unfunded	\$627,355	HQ-STMD_S, STMD-SAA-ACO20-
423	33802	BLUE ORIGIN, LLC	Space Robot Operating System	11/6/2020	11/5/2022	Unfunded	\$2,112,823	HQ-STMD_S/32
424	33801	PH Matter, LLC	Advanced Alkaline Reversible Cell for Production of Hydrogen and Oxygen from ISRU-Generated Water	11/6/2020	11/5/2022	Unfunded	\$441,469	HQ-STMD_S <sub>0012</sub>
425	33800	SPACE SYSTEMS LORAL, LLC	Lunar Dust Mitigation on Flexible Solar Arrays	11/6/2020	11/5/2022	Unfunded	\$965,210	HQ-STMD_S, STMD-SAA-ACO20- 0020

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426	33799	Box Elder Innovations, LLC	Enhanced Pulsed Electro-Acoustic Analysis	11/6/2020	11/5/2022	Unfunded	\$868,613	HQ-STMD_S, STMD-SAA-ACO20-0001
427	33798	Gloyer-Taylor Laboratories, LLC	UCDS Demonstration and Evaluation	11/6/2020	11/5/2022	Unfunded	\$93,581	HQ-STMD_S/0004
428	33797	SPACE SYSTEMS LORAL, LLC	Advancing the TRL of Novel Diamond-Like-Coating for Protection of Solar Cell Interconnectors from High-Energy Electric Thruster Plume Erosion	11/6/2020	11/5/2022	Unfunded	\$268,388	HQ-STMD_S/0019
429	33795	SPACE SYSTEMS LORAL, LLC	Bang-Bang Propellant Feed System for the 12 kW Hall Thruster	11/6/2020	11/5/2022	Unfunded	\$461,692	HQ-STMD_S/0024
430	33794	IN Space, LLC	Rapid Development of Regeneratively Cooled RDRE Chambers for Space Engines	11/6/2020	11/5/2022	Unfunded	\$950,222	HQ-STMD_S, STMD-SAA-ACO20- 0044

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431	33772	SPACE EXPLORATION TECHNOLOGIES CORP	Space-rated FOSS Interrogator For Cryogenic Temperature Monitoring In Space	11/6/2020	11/5/2022	Non-Reimbursable	\$540,219	HQ-STMD_S, STMD-SAA-ACO20-0010
432	30979	Spirit AeroSystems Inc	NRSAA Between NASA and Spirit AeroSystems Inc Under the Space Technology Announcement of Competitive Opportunity 2019, Improved Durability for a Low-Cost Reusable Launch Vehicle Manufactured via Friction Stir Welding	7/29/2019	6/1/2023	Unfunded	\$1,239,000	HQ-STMD_S/ACO-2019-070
433	30978	Vulcan Wireless	NRSAA Between NASA and Vulcan Wireless Inc Under the Space Technology Announcement of Competitive Opportunity 2019, Resilience testing of Multi-Mode S-Band Transponder	7/29/2019	5/31/2022	Unfunded	\$1,085,438	HQ-STMD_S, ACO-2019-061
434	30976	BLUE ORIGIN, LLC	NRSAA Between NASA and Blue Origin Under the Space Technology Announcement of Competitive Opportunity 2019, Lunar Lander Advanced Nozzle Collaboration	7/29/2019	11/30/2021	Unfunded	\$1,229,980	HQ-STMD_S, ACO-2019-053
435	30975	BLUE ORIGIN, LLC	NRSAA Between NASA and Blue Origin Under the Space Technology Announcement of Competitive Opportunity 2019, Precision Safe Lunar Landing System Development	7/29/2019	10/30/2021	Unfunded	\$1,050,000	HQ-STMD_S, ACO-2019-051

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436	30974	BLUE ORIGIN, LLC	NRSAA Between NASA and Blue Origin Under the Space Technology Announcement of Competitive Opportunity 2019, Primary Fuel Cell Power System for Lunar Landers	7/29/2019	7/29/2022	Unfunded	\$1,450,000	HQ-STMD_S/ACO-2019-050
437	30972	Colorado Power Electronics Inc.	NRSAA Between NASA and Colorado Power Electronics Inc Under the Space Technology Announcement of Competitive Opportunity 2019, Qualification and Integration Tests of the Colorado Power Electronics Prototype Development Unit Power Processing Unit with NASA and Commercial Hall Thrusters	7/29/2019	12/29/2022	Unfunded	\$1,300,000	HQ-STMD_S/ACO-2019-025
438	30967	LOCKHEED MARTIN	NRSAA Between NASA and Lockheed Martin Under the Space Technology Announcement of Competitive Opportunity 2019, Advanced Lightweight Powder Metallurgy for Hot Structures	7/29/2019	12/31/2021	Unfunded	\$1,040,000	HQ-STMD_S/ACO-2019-075
439	30963	SIERRA NEVADA CORP	NRSAA Between NASA and Sierra Nevada Corporation Under the Space Technology Announcement of Competitive Opportunity 2019, Upper Stage Recovery	7/29/2019	12/30/2021	Unfunded	\$282,413	HQ-STMD_S/ACO-2019-063
440	30962	SIERRA NEVADA CORP	NRSAA Between NASA and Sierra Nevada Corporation Under the Space Technology Announcement of Competitive Opportunity 2019, Scientifically Calibrated In-Flight Imagery		12/31/2023	Unfunded	\$1,022,908	HQ-STMD_S/ACO-2019-062

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44	1 30961	Aerogel Technologies	NRSAA Between NASA and Aerogel Technologies LLC Under the Space Technology Announcement of Competitive Opportunity 2019, Mechanically Strong Polyimide Aerogels as Multifunctional Acoustic Insulation for Aerospace Applications	7/29/2019	9/29/2022	Unfunded	\$1,298,000 HQ-STMD_S	ACO-2019-027
44	2 30960	AEROJET ROCKETDYNE, INC	NRSAA Between NASA and Aerojet Rocketdyne of DE Inc. Under the Space Technology Announcement of Competitive Opportunity 2019, Extensible Robotic Deposition Technology for Propulsion Systems	7/29/2019	11/30/2021	Unfunded	\$1,197,474 HQ-STMD_S	ACO-2019-024
44	3 30959	Bally Ribbon Mills	NRSAA Between NASA and Bally Ribbon Mills Under the Space Technology Announcement of Competitive Opportunity 2019, ADEPT Spider Weave Thermal Testing	7/29/2019	9/30/2021	Unfunded	\$1,769,000 HQ-STMD_S	ACO-2019-023
44	4 30958	Advanced Space LLC	NRSAA Between NASA and Advance Space LLC Under the Space Technology Announcement of Competitive Opportunity 2019, Advancing Lunar Navigation Technologies to Enable Exploration and Commercial Development	7/29/2019	9/30/2023	Unfunded	\$670,696 HQ-STMD_S	ACO-2019-018
44	5 30933	SPACE SYSTEMS LORAL, LLC	NRSAA Between NASA and Space Systems Loral LLC Under the Space Technology Announcement of Competitive Opportunity 2019, Advancing Qualification Protocols of Ultralightweight 5-junction Solar Cells Applied to Flexible Solar Array Power Modules		12/29/2022	Unfunded	\$1,752,052 HQ-STMD_S	ACO-2019-011

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	446 30924	SPACE SYSTEMS LORAL, LLC	NRSAA Between NASA and Space Systems Loral LLC Under the Space Technology Announcement of Competitive Opportunity 2019, Advanced Packaging Methods for Next-Generation Reflectors	7/29/2019	4/30/2024	Unfunded	\$1,280,000 HQ-STMD_S	ACO-2019-010
	447 30921	Anasphere Inc.	NRSAA Between NASA and Anasphere Inc, Under the Space Technology Announcement of Competitive Opportunity 2019. Ground Testing of (Hypersonic Inflatable Aerodynamic Decelerator) HIAD Hydrogen Gas Generator	7/29/2019	12/29/2021	Unfunded	\$458,520 HQ-STMD_S	ACO-2019-002
	448 34786	MOOG, INC	JPL IGOR Software Support for MBR	10/21/2021	10/21/2024	Reimbursable	JPL	
	449 34396	AEROJET ROCKETDYNE, INC	A Digitally Informed Approach To Enhanced Heat Recovery	7/21/2021	1/21/2025	Reimbursable	JPL	34396
	450 34171	Carbon Mapper	Carbon Plume Mapper (CPM)	3/19/2021	5/19/2023	Reimbursable	JPL	

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451	34060	BATTELLE MEMORIAL INSTITUTE	National Ecological Observatory Network (NEON) NEON Im	aa 6/23/2021	6/23/2024	Reimbursable		JPL
452	34016	EMBRY-RIDDLE AERONAUTICAL (	AtmoSense/AIRWaveS: Atmosphere-Ionosphere Response	s 8/18/2021	11/18/2023	Reimbursable		JPL
453	33889	Raytheon Company	OCX Block 3F Support	8/18/2021	3/18/2025	Reimbursable		JPL
454	33853	MASTEN SPACE SYSTEMS, INC	Interplanetary Network Services Support	3/1/2021	5/1/2023	Reimbursable		JPL
455	33632	Veripos (US) Inc.	Global Navigation Satellite Systems Corrections Data to Ver	i  3/11/2021	3/11/2023	Reimbursable		JPL

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	456 33349	Sienza Inc.	High Energy and Long Cycle Life Li-ion Batteries with Novel	2/2/2021	2/2/2024	Reimbursable	JPL	
	457 33258	Citrus College	Pathways in STEM: Cross-Sector Partnerships, Experiential	12/15/2020	12/15/2025	Reimbursable	JPL	
	458 32586	GEORGIA INSTITUTE OF TECHN	O Support to the Development of Advanced Data Compression	10/23/2020	10/23/2023	Reimbursable	JPL	
	459 31774	The University of Maryland	Exploitation of COSMIC-2 Data in Numerical Weather Predic	:12/8/2020	12/8/2021	Reimbursable	JPL	
	460 31616	ASTROBOTIC TECHNOLOGY, INC	C IND Network Services Support of Astrobotic	4/15/2020	2/15/2022	Reimbursable	JPL	

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461	31570	PaR Systems, LLC	Piezoelectric Percussive Augmenter of Rotary Drill (PARoD)	) 1/31/2020	1/31/2023	Reimbursable		JPL	
462	30629	LOUISIANA STATE UNIVERSITY	Synthetic Aperture Radar Interferometry (InSAR) Evaluation	i 12/16/2019	9/30/2023	Reimbursable		JPL	82-105663
463	30354	JOHNS HOPKINS UNIVERSITY / AI	Augmented Reality Computer-Aided Design Visualizations for	o 9/10/2019	1/10/2022	Reimbursable		JPL	
464	29920	Photon Spot, Inc.	Superconducting Nanowire Single Photon Detector Technol	o 3/27/2019	4/27/2022	Reimbursable		JPL	
465	29811	Leidos, Inc.	S&T Advancement for MDUSV Operations	1/9/2020	1/9/2022	Reimbursable		JPL	

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	466 29799	HARRIS CORP	Navigation Technology Satellite-3 Geosynchronous Earth Or	4/10/2019	4/10/2023	Reimbursable	JPL	
	467 28319	THE AEROSPACE CORPORATION	N EMPIRICAL STUDIES OF RADIATION DAMAGE TO SPAC	5/17/2019	5/17/2024	Reimbursable	JPL	
	468 27788	The George Washington University	Data Science Biomarker Technologies for the Information Te	11/14/2018	11/14/2021	Reimbursable	JPL	
	469 26635	Beckman Research Institute of the	C Develop Generalized Newton-Euler Inverse Mass Operator (	11/29/2017	11/29/2021	Reimbursable	JPL	
	470 26523	Northrop Grumman Systems Corpo	ora Support the Development of Advanced Ground Antennas for	3/19/2018	3/26/2023	Reimbursable	JPL	

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471	25621	GeoOptics, Inc.	GeoOptics for Advanced Gravity Mapping and Crosslink Oc	c 7/26/2017	2/28/2022	Reimbursable		JPL
472	24877	Raytheon Vision Systems	New Vital Infrared Sensor Technology Acceleration (VISTA)	17/12/2017	7/12/2022	Reimbursable		JPL
473	24666	Northrop Grumman Corporation	Microwave Temperature and Humidity Profiler (MTHP) Mod	if 6/6/2017	4/25/2022	Reimbursable		JPL
474	23388	Placidus LLC	Production of Smart-Wire Driven by a Vibratory Piezoelectric	c 12/6/2016	1/31/2022	Reimbursable		JPL
475	23050	NYSEARCH / Northeast Gas Associa	DEVELOP METHANE SNIFFER FOR A SMALL UNMANNE	El 9/6/2016	7/1/2023	Reimbursable		JPL

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	476 22012	RKI Instruments	Methane Sniffer Commercialization	3/29/2016	2/28/2022	Reimbursable	JPL	
	477 20611	Direct Electron LP	BSI Development for Scientific CMOS Image Sensors	6/21/2016	1/31/2022	Reimbursable	JPL	
	478 20421	California Department of Water Re	sc Subseasonal Prediction of Atmospheric Rivers and the Mado	6/14/2016	6/30/2022	Reimbursable	JPL	
	479 13464	Space Exploration Technologies	SURFACE CHEMICAL AND MATERIALS ANALYSIS OF SF	10/1/2012	2/27/2022	Reimbursable	JPL	
	480 11998	The Boeing Company	Ionizing Radiation Evaluation of Materials and Semiconducto	5/16/2012	4/1/2025	Reimbursable	JPL	

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4	81 34659	Walter Dorwin Teague Associates, Inc.	Habitat Layout Trade Studies for Analog Missions and Concepts	7/21/2021	7/21/2026	Non-Reimbursable	\$5,303 JSC	SAA-EA-21-34659
4	82 34314	Orbit Fab, Inc.	Small Satellite Proximity Operations & Refueling Technologies	6/7/2021	6/7/2025	Non-Reimbursable	\$10,311 JSC	SAA-EA-21-34314
4	83 34285	SPACE EXPLORATION TECHNOL	.CTWO NON-NASA SPACEFLIGHT MISSIONS	7/14/2021	7/14/2026	Reimbursable	JSC	SAA-UA-21-34284
4	84 34284	SPACE EXPLORATION TECHNOL	.CCOMMERCIAL SPACE SYSTEM OPERATIONS AND DEVE	7/14/2021	7/14/2026	Reimbursable	JSC	SAA-UA-21-34284
4	85 34188	Next American Astronaut, Inc.	NAA Commercial LEO Joint Feasibility Study	3/10/2021	2/28/2022	Non-Reimbursable	\$46,279 JSC	SAA-UA-21-34188

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	486 34168	KBR WYLE SERVICES, LLC	ANNEX ONE for HUMAN HEALTH AND PERFORMANCE F	5/26/2021	5/26/2026	Reimbursable	JSC	SAA-SA-21-34167
	487 34167	KBR WYLE SERVICES, LLC	HUMAN HEALTH AND PERFORMANCE FACILITIES UTILI	5/26/2021	5/26/2026	Reimbursable	JSC	SAA-SA-21-34167
	488 34138	INTUITIVE MACHINES, LLC	Annex to Engineering Analysis and Testing	5/26/2021	5/20/2022	Reimbursable	JSC	SAA-EA-21-34138
	489 34137	INTUITIVE MACHINES, LLC	Engineering Analysis and Testing	5/26/2021	5/26/2026	Reimbursable	JSC	SAA-XA-21-34137
	490 33921	Bridgerland Technical College	Bridgerland Technical College	10/20/2021	10/19/2026	Non-Reimbursable	\$3,139 JSC	

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491	33915	Highlands College Of Montana Tech	Highlands College Of Montana Tech	10/13/2021	10/12/2026	Non-Reimbursable	\$3,138 JSC	
492	33898	Virgin Orbit	Annex to Reimbursable Umbrella Space Act Agreement betw	2/11/2021	2/11/2022	Reimbursable	JSC	SAA2-403586
493	33880	COUNTY COLLEGE OF MORRIS	COUNTY COLLEGE OF MORRIS	10/20/2021	10/19/2026	Non-Reimbursable	\$3,138 JSC	
494	33879	TRI COUNTY REGIONAL VOCATIONAL SCHOOL DISTRICT	TRI COUNTY REGIONAL VOCATIONAL SCHOOL DISTRICT	10/18/2021	10/18/2026	Non-Reimbursable	\$3,139 JSC	
495	33869	LINCOLN TECHNICAL INSTITUTE	LINCOLN TECHNICAL INSTITUTE STUDENTS COLLABORATING WITH NASA UNDER THE HUNCH (HIGH SCHOOL STUDENTS UNITED WITH NASA TO	10/20/2021	10/19/2026	Non-Reimbursable	\$3,139 JSC	

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4	196 33848	Amateur Radio on the International	SAmateur Radio on the ISS	3/23/2021	3/23/2026	Reimbursable	JSC	
4	197 33776	Amazon.com Services LLC	Project Kuiper MMOD Risk Assessment	5/19/2021	5/19/2023	Reimbursable	JSC	SAA-XI-21-33776
4	198 33766	UNITED LAUNCH ALLIANCE, LLC	Annex 3 For Commercial Space Launch Vehicle Mission Insi	1/20/2021	1/20/2023	Reimbursable	JSC	SAA-UA-21-33766-03
4	199 33744	Canyon Ridge High School	Canyon Ridge High School	8/12/2021	8/11/2026	Non-Reimbursable	\$61,713 JSC	
5	500 33710	Expanding Frontiers	Technology Utilization	6/28/2021	6/28/2022	Non-Reimbursable	\$17,363 JSC	SAA-XB-21-33710- 01

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50	1 33709	Expanding Frontiers	Technology Utilization	6/28/2021	6/28/2024	Non-Reimbursable	\$0 JSC	SAA-XB-21-33709
50	2 33506	Mass Challenge Houston	Participation in Mass Challenge Flywheel Program	4/30/2021	4/30/2022	Non-Reimbursable		SAA-XA-20-33506- 01
50	3 33505	Mass Challenge Houston	COOPERATIVE SPACE COMMERCIALIZATION ACTIVITIES	4/30/2021	4/30/2024	Non-Reimbursable	\$0 JSC	SAA-XA-20-33505
50	4 33386	Houston Cinema Arts Society	Houston Cinema Arts Society (HCAS) CineSpace	10/24/2021	12/31/2022	Non-Reimbursable	\$74,469 JSC	
50	5 33367	INTUITIVE MACHINES, LLC	Annex to Development of Lunar Lander Systems Technologi	11/30/2020	12/31/2021	Reimbursable	JSC	SAA-XA-20-33367-04

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	506 33102	AUBURN UNIVERSITY	Radio Frequency Identification (RFID) Collaboration (Annex 2)	9/3/2021	9/3/2023	Non-Reimbursable	\$10,388 JSC	SAA-EA-21-33012
	507 33026	GENERAL MOTORS, LLC	Thermal Runaway Cell Testing for Vent Gas Analysis (Annex	11/20/2020	11/20/2022	Reimbursable	JSC	SAA-EA-20-33026
	508 32919	UNIVERSITY OF TEXAS MEDICAL BRANCH	UTMB DIETETIC STUDENT EXPERIENCE AT NASA	8/12/2020	8/12/2025	Non-Reimbursable	\$37,971 JSC	32919
	509 32916	FXC Corporation/Guardian Parachute	Mechanical Parachute Reefing Release Mechanism	10/23/2020	10/23/2022	Non-Reimbursable	\$99,912 JSC	
	510 32778	Planet	ISS and Planet Operational Agreement	1/5/2021	1/4/2026	Non-Reimbursable	\$42,065 JSC	

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51	1 32760	Cheval de Feu Aerospace Corporation, dba LaMont Aerospace	FOR LOW-EARTH ORBIT COMMERCIAL SERVICES DEVELOPMENT	2/11/2021	2/10/2026	Non-Reimbursable	\$25,020 JSC	SAA-OZ-21-32760
51	2 32738	Limitless Space Institute	Advanced Power and Propulsion Partnership	4/18/2021	4/18/2026	Reimbursable	JSC	SAA-EA-21-32738
51	3 32690	ARMAND BAYOU NATURE CENTER	Environmental Education Programs	7/23/2020	7/23/2025	Non-Reimbursable	\$19,075 JSC	SAA-JA-32690
51	4 32623	Texas A&M Engineering Experimen	t Reimbursable Space Act Agreement Between National Aero	9/3/2020	9/3/2022	Reimbursable	JSC	SAA-AD-20-32623
51	5 32418	UNIVERSITY OF TEXAS	Collaboration in Robotics Technology	4/10/2020	3/10/2025	Non-Reimbursable	\$130,206 JSC	SAA-EA-20-32418

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516	32361	Techshot, Inc.	Techshot Commercial Resource Request	5/20/2020	5/20/2022	Reimbursable		JSC	
517	32319	Adidas America, Inc	Annex One for Collaboration on Materials and Technologies	6/16/2020	6/16/2025	Non-Reimbursable	\$10,458	JSC	SAA-OA-20-32319- 01
518	32253	TECHSHOT, INC	TECHSHOT ISS RESEARCH HARDWARE	5/29/2020	5/29/2025	Non-Reimbursable	\$24,483	JSC	SAA-OZ-20-32253
519	32239	Space Commerce Matters	TO COLLABORATE WITH NASA TO CONDUCT COMMER	₹ 5/4/2020	5/4/2022	Reimbursable		JSC	SAA-OZ-20-32239
520	32236	Adidas America, Inc	COLLABORATION ON ADVANCED MATERIALS AND TECHNOLOGIES	6/16/2020	6/16/2025	Non-Reimbursable	\$0	JSC	SAA-OA-20-32236

ROW NO.	PAM ID NUMBER	PARTNER NAME	TITLE/PURPOSE	SIGNATURE DATE	EXPIRATION DATE	TYPE OF AGREEMENT		CENTER TRACKING NUMBER (IF ANY)
5	521 32208	Baylor University	Baylor University and NASA Collaboration to Enhance Imagery from Space	1/15/2021	1/15/2026	Non-Reimbursable	\$60,708 JSC	
5	522 32079	WOUNDED WARRIOR PROJECT	HOUSTON SOLDIER RIDE	3/31/2020	3/31/2025	Non-Reimbursable	\$7,270 JSC	SAA-JA-20-32079
Ę	523 32068	Houston Livestock Show and Rode	o, REIMBURSABLE SPACE ACT AGREEMENT BETWEEN T	F7/16/2020	12/31/2021	Reimbursable	JSC	SAA-AD-20-32068
Ę	524 32042	Baylor University	BAYLOR UNIVERSITY AND NASA COLLABORATION ON SPACE IMAGERY AND OUTREACH TECHNOLOGIES, SCIENCE AND ENGINEERING RESEARCH, AND STEM INITIATIVES.	1/15/2021	1/15/2026	Non-Reimbursable	\$0 JSC	SAA-OA-20-32042
5	525 32031	JOHNSON SPACE CENTER RADIO CONTROL CLUB	NON-REIMBURSABLE SPACE ACT FOR RADIO CONTROLLED AIRPLANE OPERATIONS	5/7/2020	5/7/2025	Non-Reimbursable	\$6,061 JSC	SAA-JA-20-32031

ROW NO.	PAM ID NUMBER	PARTNER NAME	TITLE/PURPOSE	SIGNATURE DATE	EXPIRATION DATE	TYPE OF AGREEMENT	COMULATIVE DOLLAR CENTER	CENTER TRACKING NUMBER (IF ANY)
	526 31994	Collaborative Composites Solutions Corporation	Annex 2 - Development of Additive Manufacturing Techniques for Spacecraft Structures and Heat Shields	3/26/2020	3/15/2024	Non-Reimbursable	\$78,286 JSC	SAA-EA-19-29452
	527 31987	Chemring Energetic Devices	Development of Next Generation Ordnance Initiating System Architecture & Design	7/20/2020	7/20/2025	Non-Reimbursable	\$201,686 JSC	SAA-EA-20-31987
	528 31923	MERIDIAN HEALTH SYSTEMS	MICROWAVE TISSUE SOLDERING FOR WOUND CLOSU	4/6/2020	4/6/2022	Reimbursable	JSC	SAA-EA-20-31923
	529 31791	Texas A&M Engineering Experimen Station	t Collaborative Research in Hypersonic Flow Physics	2/18/2020	2/18/2022	Non-Reimbursable	\$16,371 JSC	SAA-EA-20-31791
	530 31778	NANORACKS, LLC	CONDUCT COMMERCIAL ACTIVITIES ON THE INTERNA	12/18/2019	12/18/2021	Reimbursable	JSC	31778

ROW NO.	PAM ID NUMBER	PARTNER NAME	TITLE/PURPOSE	SIGNATURE DATE	EXPIRATION DATE	TYPE OF AGREEMENT	VALUE FOR CENTER	CENTER TRACKING NUMBER (IF ANY)
	531 31734	IOWA NORTHWEST AREA EDUC	A Space Settlement Design Competition	7/8/2020	7/8/2023	Reimbursable	JSC	SAA-XA-20-31734
	532 31729	TECHNOLOGY COLLABORATION CENTER	Collaboration & Partnership Development Initiative	8/11/2020	8/11/2025	Non-Reimbursable	\$138,761 JSC	SAA-XA-20-31729
	533 31717	VIRGIN GALACTIC, LLC	Virgin Galactic Private Astronaut Mission	5/15/2020	5/15/2025	Non-Reimbursable	\$27,095 JSC	SAA-OA-20-31717
	534 31714	TEXAS INSTRUMENTS, INC	Strategic Alliance for STEM Engagement and Outreach Activities	3/17/2020	3/17/2025	Non-Reimbursable	\$0 JSC	SAA-AD-20-31714
	535 31619	Alpha Space Test and Research All	lia CONDUCT COMMERCIAL ACTIVITIES ON THE INTERNAT	12/18/2019	12/18/2021	Reimbursable	JSC	

ROW NO.	PAM ID NUMBER	PARTNER NAME	TITLE/PURPOSE	SIGNATURE DATE	EXPIRATION DATE	TYPE OF AGREEMENT	COMULATIVE DOLLAR CENTER	CENTER TRACKING NUMBER (IF ANY)
	536 31386	UNIVERSITY OF ILLINOIS	Aero-capture and Atmospheric Entry, Descent, and Landing Guidance, Navigation, and Control (GN&C)	2/28/2020	2/28/2025	Non-Reimbursable	\$29,056 JSC	SAA-EA-20-31386
	537 31322	The Proctor & Gamble Company	Laundry Detergent for Space	8/18/2020	8/18/2022	Non-Reimbursable	\$111,504 JSC	SAA-EA-20-31322
	538 31321	The Proctor & Gamble Company	Cleaning in Space	8/18/2020	8/18/2025	Non-Reimbursable	\$0 JSC	SAA-EA-20-31321
	539 31150	UNIVERSITY OF TEXAS	Hypersonic Environment and Material Response Testing and Research	3/10/2020	3/10/2025	Non-Reimbursable	\$81,372 JSC	SAA-EA-20-31150
	540 31149	UNIVERSITY OF TEXAS	Collaborative Research, Technology Transfer, Education and Outreach Activities	3/10/2020	3/10/2025	Non-Reimbursable	\$0 JSC	SAA-EA-20-31149

ROW NO.	PAM ID NUMBER	PARTNER NAME	TITLE/PURPOSE	SIGNATURE DATE	EXPIRATION DATE	TYPE OF AGREEMENT	VALUE FOR CENTER	CENTER TRACKING NUMBER (IF ANY)
5	41 31124	HOUSTON INDEPENDENT SCHO	O Annex to existing umbrella - Collaboration for STEM Engage	11/15/2019	11/15/2022	Reimbursable	JSC	SAA-AD-18-27594
5	42 31088	Meridian Technology Center	HIGH SCHOOL STUDENTS UNITED WITH NASA TO CREATE HARDWARE (HUNCH).	8/12/2021	8/12/2026	Non-Reimbursable	\$22,752 JSC	
5	43 31078	Oliver Ames High School	HIGH SCHOOL STUDENTS UNITED WITH NASA TO CREATE HARDWARE (HUNCH).	8/12/2021	8/12/2026	Non-Reimbursable	\$16,206 JSC	
5	44 30784	WILLIAM MARSH RICE UNIVERSI	T HUMANOID ROBOTICS AND RELATED TECHNOLOGIES	3/10/2020	3/10/2025	Reimbursable	JSC	SAA-EA-19-30784
5	45 30783	WILLIAM MARSH RICE UNIVERSI	T COLLABORATIVE TECHNOLOGY DEVELOPMENT, INNOV	3/10/2020	3/10/2025	Reimbursable	JSC	SAA-EA-19-30783

ROW NO.	PAM ID NUMBER	PARTNER NAME	TITLE/PURPOSE	SIGNATURE DATE	EXPIRATION DATE	TYPE OF AGREEMENT		CENTER TRACKING NUMBER (IF ANY)
	546 30679	NANORACKS, LLC	OPERATION OF THE NANORACKS SYSTEM ABOARD THE INTERNATIONAL SPACE STATION	7/31/2019	7/31/2024	Non-Reimbursable	\$24,597 JSC	
	547 30536	Science Applications International	CcAnnex 1 between NASA JSC and SAIC for Testing in the RIT	12/10/2020	2/10/2025	Reimbursable	JSC	SAA-NA-20-30536-01
	548 30535	Science Applications International	Cc Reimbursable Umbrella Agreement between NASA JSC and	2/10/2020	2/10/2025	Reimbursable	JSC	SAA-NA-20-30535
	549 30388	Katy Independent School District	MEMORANDUM OF AGREEMENT BETWEEN THE NATIONAL AERONAUTICS AND SPACE ADMINIMISTRATION LYNDON B. JOHNSON SPACE CENTER AND KATY INDEPENDENT SCHOOL DISTRICT FOR NASA CONTINUITY OF OPERATONS PROGRAM	9/30/2019	9/30/2024	Non-Reimbursable	\$0 JSC	SAA-JA-20-30388
	550 30163	WILLIAM MARSH RICE UNIVERSITY	Annex 9 for Collaborative Research, Education and Outreach Activities	9/4/2019	5/2/2022	Non-Reimbursable	\$43,654 JSC	SAA-EA-19-30163

ROW NO.		AM ID JMBER	PARTNER NAME	TITLE/PURPOSE	SIGNATURE DATE	EXPIRATION DATE	TYPE OF AGREEMENT	TOTAL ESTIMATED CUMULATIVE DOLLAR VALUE FOR AGREEMENT	CENTER	CENTER TRACKING NUMBER (IF ANY)
	551 301	119	GENERAL MOTORS, LLC	Engineering Analysis and Testing for Advanced Technology	l 1/27/2020	1/27/2025	Reimbursable		JSC	SAA-EA-19-30119
,	552 301	108	Orbital Sciences Corporation, a wholl	JSC/SGT Annex to Cryogenically - Fueled Upper Stage Tec	⊦ 8/28/2019	8/27/2022	Reimbursable		JSC	SAA8-1726082
	553 299	921	Smart Information Flow Technologies	Monitoring Emergent Duress Under Long Lasting Allostasis	(11/3/2019	11/3/2021	Reimbursable		JSC	
	554 298		Manned Space Flight Education Foundation, Inc.	NON-REIMBURSBLE SAA WITH MANNED SPACEFLIGHT EDUCATION FOUNDATION, INC. FOR COLLABORATIVE EDUCATION AND OUTREACH ACTIVITIES	7/15/2019	7/15/2024	Non-Reimbursable	\$3,095	JSC	SAA-AD-19-29865
	555 298	823	Underwriters Laboratories Inc.	Engineering Analysis and Testing for Advanced Technology	l7/3/2019	7/3/2024	Reimbursable		JSC	SAA-EA-19-29823

ROW NO.	PAM ID NUMBER	PARTNER NAME	TITLE/PURPOSE	SIGNATURE DATE	EXPIRATION DATE	TYPE OF AGREEMENT	COMULATIVE DOLLAR CENTER	CENTER TRACKING NUMBER (IF ANY)
5	56 29812	RED.com, Inc.	RED Digital Cinema Core Camera for ISS	1/23/2020	1/23/2025	Non-Reimbursable	\$1,271,505 JSC	29812
5	57 29741	Ogemaw Heights High School	HIGH SCHOOL STUDENTS COLLABORATING WITH NASA TO PRODUCE HARDWARE OR OTHER USEFUL PRODUCTS UNDER THE HUNCH (HIGH SCHOOL STUDENTS UNITED WITH NASA TO CREATE HARDWARE) PROGRAM	9/23/2021	9/22/2026	Non-Reimbursable	\$6,516 JSC	SAA-OA-21-29741
5	58 29738	Delta Schoolcraft Intermediate School District	High School Students United with NASA to Create Hardware (HUNCH)	9/24/2021	9/23/2026	Non-Reimbursable	\$6,516 JSC	SAA-OA-19-29738
5.	59 29736	Harris County Sheriff's Office	Performance of Training Events for First Responders at the I	8/25/2020	8/25/2025	Reimbursable	JSC	
5	60 29557	UNIVERSITY OF WASHINGTON	Mental Modes Cycles	5/29/2019	5/29/2022	Reimbursable	JSC	

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5	61 29456	Houston Exponential	Cooperative Community Outreach Activities	6/6/2019	6/6/2024	Non-Reimbursable	\$227,792 JSC	SAA-XA-19-29456
5	62 29452	Collaborative Composites Solutions Corporation	Collaboration for Advanced Manufacturing Techniques	3/15/2019	3/15/2024	Non-Reimbursable	\$0 JSC	SAA-EA-19-29452
5	63 29366	Axiom Space, Inc.	Flight Operations Directorate Axiom Training	9/23/2019	8/27/2024	Reimbursable	JSC	SAA-OA-19-29366-0 <sup>-</sup>
5	64 29365	Axiom Space, Inc.	Low-Earth Orbit Commercial Development Utilizing the ISS	8/27/2019	8/27/2024	Reimbursable	JSC	SAA-19-OA-29365
5	65 29343	BLUE ORIGIN, LLC	Engineering Analysis and Testing	2/8/2020	2/8/2025	Reimbursable	JSC	SAA-EA-20-29343

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	566 28973	SGT, LLC	NASA JSC/SGT Vendor Partner Agreement	9/10/2019	9/10/2024	Reimbursable	JSC	SAA-CA-19-28973
	567 28812	UNIVERSITY OF HOUSTON	SAA with University of Houston for Collaborative Research, Technology Transfer, Education and Outreach Activities	11/5/2018	11/5/2023	Non-Reimbursable	\$0 JSC	SAA-CA-19-28812
	568 28679	Ben Barber Innovation Academy	High School Students United with NASA to Create Hardware (HUNCH) Program	10/3/2018	10/2/2023	Non-Reimbursable	\$14,111 JSC	SAA-OZ-18-28679
	569 28672	LOCKHEED MARTIN	INTEGRATION AND OPERATIONS SUPPORT RELATED	12/17/2018	12/17/2023	Reimbursable	JSC	SAA-GA-18-28672
	570 28527	N-SCIENCE, INC	Asteroid Exploration Mission Concept Development	8/20/2019	8/20/2022	Non-Reimbursable	\$12,395 JSC	SAA-XA-19-28527

ROW NO.	PAM ID NUMBER	PARTNER NAME	TITLE/PURPOSE	SIGNATURE DATE	EXPIRATION DATE	TYPE OF AGREEMENT	VALUE FOR CENTER	CENTER TRACKING NUMBER (IF ANY)
5	571 28383	Ross Aviation Operations LLC	A/M32A-60 "Dash 60" Jet Starter Loan to Ross Aviation	10/3/2018	10/2/2023	Non-Reimbursable	\$5,950 JSC	SAA-CA-18 28383
5	572 28379	BiVACOR Inc.	Analysis of Artificial Heart System for In-Human Testing	10/1/2019	1/1/2022	Reimbursable	JSC	SAA-NA-20-28379-01
5	573 28378	BiVACOR Inc.	SAFETY, RELIABILITY, AND ENGINEERING ANALYSES C	10/1/2019	10/1/2024	Reimbursable	JSC	SAA-NA-20-28378
5	574 28358	New York Space Alliance	The Fostering of Space Entrepreneurship	10/5/2018	10/5/2023	Non-Reimbursable	\$0 JSC	SAA-XB-18-28358
Ę	575 28307	DreamUp	Collaboration in Support of Educational Outreach	8/1/2018	7/31/2023	Non-Reimbursable	\$34,139 JSC	SAA-OZ-18-28307

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576	28182	SOUTHWEST RESEARCH INSTITUTE	Commercialization of NASA's NASGRO software	11/21/2018	11/21/2023	Non-Reimbursable	\$196,654	JSC	SAA-EA-19-28182
577	28089	Alvin High School	For Students Collaborating with NASA to Produce Hardware or Other Useful Products under the High School Students Unified with NASA to Create Hardware (HUNCH) Program	9/20/2018	9/19/2023	Non-Reimbursable	\$57,440	JSC	SAA-OZ-18-28089
578	28036	Microsoft Corporation	Annex 4 to Non-Reimbursable Space Act Umbrella Agreement between the National Aeronautics and Space Administration Lyndon B. Johnson Space Center and Microsoft Corporation for Strategic Alliance for STEM Education Activities	2/12/2019	2/12/2022	Non-Reimbursable	\$193,256	JSC	SAA-AD-18-28036- 04
579	28012	Prairie View A&M University	NASA JSC 's Continued Support of the Joint Development of the Charged Particle Detector with PVAMU	5/1/2018	5/1/2022	Non-Reimbursable	\$25,447	JSC	SAA-EA-18-28012
580	27894	Space Family Education, Inc	Aaron Cohen Child Care Center	6/27/2019	6/27/2024	Non-Reimbursable	\$2,102,672	JSC	SAA-XA-18-27894

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581	27827	WILLIAM MARSH RICE UNIVERSITY	Rice University Annex 6 JSC Partnership in Water Reuse Development for Human Exploration Missions	6/25/2018	5/2/2022	Non-Reimbursable	\$112,175	JSC	SAA-EA-18-27827
582	27634	University of Houston-Clear Lake	Umbrella for Collaborative Research, Technology Transfer, and Education Activities	8/23/2019	8/23/2024	Non-Reimbursable	\$0	JSC	SAA-XA-19-27634
583	27601	THE REGENTS OF THE UNIVERSITY OF COLORADO	Life and Microgravity Science Research Support	5/8/2019	5/7/2022	Non-Reimbursable	\$24,037	JSC	SAA-OZ-18-27601
584	27594	HOUSTON INDEPENDENT SCHOO	Collaboration for STEM Engagement, Education, and Comm	n 8/28/2018	8/27/2023	Reimbursable		JSC	SAA-AD-18-27594
585	27517		HIGH SCHOOL STUDENTS COLLABORATING WITH NASA TO PRODUCE HARDWARE OR OTHER USEFUL PRODUCTS UNDER THE HUNCH PROGRAM	5/8/2018	5/8/2023	Non-Reimbursable	\$12,603	JSC	SAA-OZ-18-27517

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	586 27425	Peanuts Worldwide, LLC	PUBLIC AND EDUCATION OUTREACH AND STEM PROJECTS	6/20/2018	6/20/2023	Non-Reimbursable	\$0 JSC	SAA-GA-18-27245
	587 27253	BIGELOW AEROSPACE	NON-REIMBURSABLE TO LOW-EARTH ORBIT COMMERCIAL DEVELOPMENT	3/30/2018	3/29/2023	Non-Reimbursable	\$70,348 JSC	OZ-18-27253
	588 26943	Wheeling High School	High School Students Collaborating with NASA to Produce Hardware or Other Useful Products Under the High School Students United with NASA to Create Hardware (HUNCH) Program	3/21/2018	3/20/2023	Non-Reimbursable	\$12,835 JSC	SAA-OZ-18-26943
	589 26934	Hawthorne High School	Students Collaborating with NASA to Produce Hardware or Other Useful Products Under the High School Students United with NASA to Create Hardware (HUNCH) Program	3/23/2018	3/22/2023	Non-Reimbursable	\$33,644 JSC	SAA-OZ-18-26934
	590 26933	Alief Independent School District	Students Collaborating with NASA to Produce Hardware or Other Useful Products Under the High School Students United with NASA to Create Hardware (HUNCH) Program	1/18/2018	1/18/2023	Non-Reimbursable	\$112,831 JSC	SAA-OZ-17-26933

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591	26826	THE BOEING COMPANY	WB-57 Technology Demonstrator Platform	2/14/2018	2/13/2022	Reimbursable		JSC	
592	26763	UNITED LAUNCH ALLIANCE, LLC	Commercial Space Launch Vehicle Mission Insight	2/16/2018	10/2/2021	Reimbursable		JSC	SAA-UA3-17-26763
593	26762	UNITED LAUNCH ALLIANCE, LLC	Commercial Space Launch Vehicle Developments	2/5/2018	2/5/2023	Reimbursable		JSC	SAA-UA3-17-26762
594	26418		COOPERATIVE AND COMMUNITY OUTREACH ACTIVITIES	10/17/2017	10/16/2022	Non-Reimbursable	\$145,128	JSC	SAA-AD-18-26418
595	26277	NORTH CAROLINA STATE UNIVERSITY	Annex 2 to Collaborative Aerospace Research, Development, and Testing Opportunities	10/13/2017	10/13/2022	Non-Reimbursable	\$17,165	JSC	SAA-EA-17-26277

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596	26205		Umbrella Space Act Agreement Industrial Fabrics Association International (IFAI) Exposition	8/2/2018	8/2/2023	Non-Reimbursable	\$0	JSC	SAA-EA-17-26205
597	26188	Fairport Central School District	High School Students Collaborating with NASA to Produce Hardware or Other Useful Products Under the HUNCH Program	11/1/2017	10/31/2022	Non-Reimbursable	\$40,412	JSC	SAA-OZ-17-26188
598	26179		High School Students Collaborating with NASA to Produce Hardware or Other Useful Products Under HUNCH	10/13/2017	10/12/2022	Non-Reimbursable	\$40,412	JSC	SAA-OZ-17-26179
599	26048	Microsoft Corporation	Non-Reimbursable Space Act Umbrella Agreement between the National Aeronautics and Space Administration Lyndon B. Johnson Space Center and Microsoft Corporation for Strategic Alliance for STEM Education Activities	2/6/2018	2/5/2023	Non-Reimbursable	\$0	JSC	SAA-AD-18-26048
600	26023	Raytheon Intelligence, Information ar	Annex 5 Authorizing Clean Room, Animation, Manufacturing	,10/18/2017	9/30/2022	Reimbursable		JSC	SAA-CA-17-26023-5

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6	501 26021	Raytheon Intelligence, Information ar Annex 4 Authorizing Support for Department of Defense Divi	19/27/2017	9/30/2022	Reimbursable	JSC	SAA-CA-17-26021-04
6	602 26017	Raytheon Intelligence, Information ar Annex 3 Authorizing Remotely Operated Vehicles (ROV) and	9/27/2017	9/30/2022	Reimbursable	JSC	SAA-CA-26017-03
6	503 26016	Raytheon Intelligence, Information an Annex 2 Authorizing Non-Destructive Testing Commercializa	9/27/2017	9/30/2022	Reimbursable	JSC	SAA-CA-17-26016-02
6	504 26007	Raytheon Intelligence, Information an Annex 1 Authorizing Safety, Survival, Emergency Response,	9/27/2017	9/30/2022	Reimbursable	JSC	SAA-CA-17-26007-01
6	26006	Raytheon Intelligence, Information ar Umbrella Agreement Authorizing Commercialization Activitie	9/27/2017	9/30/2022	Reimbursable	JSC	SAA-CA-17-26006

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606	26003	ULSTER COUNTY BOARD OF COOPERATIVE EDUCATIONAL SERVICES	ULSTER COUNTY BOARD OF COOPERATIVE EDUCATIONAL SERVICES FOR HIGH SCHOOL STUDENTS COLLABORATING WITH NASA TO PRODUCE HARDWARE OR OTHER USEFUL PRODUCTS UNDER THE HUNCH PROGRAM	10/13/2017	10/12/2022	Non-Reimbursable	\$50,182	JSC	SAA-OZ-17-26003
607	25999	St. Mary`s County Public Schools	St. Mary`s County Public Schools for High School Students Collaborating with NASA to Produce Hardware or Other Useful Products Under the HUNCH Program	10/26/2017	10/26/2022	Non-Reimbursable	\$40,783	JSC	SAA-OZ-17-25999
608	25997	Saint John Valley Technology Center	Saint John Valley Technology Center for Students Collaborating with NASA to Produce Hardware or Other Useful Products Under the HUNCH Program	11/27/2017	11/26/2022	Non-Reimbursable	\$24,299	JSC	SAA-OZ-17-25997
609	25144	WILLIAM MARSH RICE UNIVERSITY	Rice Annex 1 - Collaborative Robotics Research	5/3/2017	5/2/2022	Non-Reimbursable	\$118,923	JSC	SAA-EA-17-25144- 01
610	25143	WILLIAM MARSH RICE UNIVERSITY	Collaborative Research, Education and Outreach Activities	5/2/2017	5/3/2022	Non-Reimbursable	\$0	JSC	SAA-XA-17-25143

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611	25102	Greater Houston Partnership	Cooperative Community Outreach Activities	8/9/2017	8/9/2022	Non-Reimbursable	\$589,059 JSC	SAA-XA-17-25102
612	24920	The SME Education Foundation	SME Hunch A	3/1/2017	2/28/2022	Non-Reimbursable	\$150,502 JSC	SAA-OA-17-24920
613	24788	Shell International Exploration & Pro	oc Safety, Reliability, and Engineering Analysis for Deep Water	5/16/2017	5/16/2022	Reimbursable	JSC	SAA-NA-17-24788
614	24777	Bay Area Houston Advanced Techn	o Failure Analysis	2/7/2017	2/7/2022	Reimbursable	JSC	
615	24763	Bay Area Houston Advanced Techn	o NASA Safety Training Center Classes	2/7/2017	2/7/2022	Reimbursable	JSC	

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616	24615	Bay Area Houston Advanced Techno	RITF Workmanship Training	2/7/2017	2/7/2022	Reimbursable		JSC	SAA-NA-17-24615-01
617	24614	Bay Area Houston Advanced Techno	Technology Partnerships	2/7/2017	2/7/2022	Reimbursable		JSC	
618	3 24331	Houston Livestock Show & Rodeo	NONREIMBURSABLE SPACE ACT AGREEMENT BETWEEN THE NATIONAL AERONAUTICS AND SPACE ADMINISTRATION LYNDON B. JOHNSON SPACE CENTER AND HOUSTON LIVESTOCK SHOW & RODEO FOR COMMUNITY RELATIONS AND EDUCATION OUTREACH ACTIVITIES	3/17/2017	3/16/2022	Non-Reimbursable	\$90,898	JSC	SAA-AD-17-24331
619	24326	Conway School District	Students Collaborating with NASA to Produce Hardware or Other Useful Products Under the HUNCH (High School Students United with NASA to Create Hardware) Program	11/1/2017	11/1/2022	Non-Reimbursable	\$236,218	JSC	SAA-OZ-17-24326
620	24275	Windsor Board of Education	Students Collaborating with NASA to Produce Hardware or Other Useful Products Under the HUNCH Program	11/28/2017	11/27/2022	Non-Reimbursable	\$231,674	JSC	SAA-OZ-17-24275

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(	621 24255	Texas Space Technology Applicatio	n Architecture Expertise for Modular Integrated Stackable Laye	12/12/2016	12/12/2021	Reimbursable	JSC	SAA-EA-17-24255
	622 23749	Space Tango Inc	New Operation of the TangoLab-1 and Future Platforms Aboard the International Space Station National Laboratory	6/1/2017	5/31/2022	Non-Reimbursable	\$83,852 JSC	SAA-OZ-17-23749
	523 23506	University of Houston, Clear Lake	Handling of Historic Spaceflight Documents	1/23/2017	1/23/2022	Non-Reimbursable	\$13,413 JSC	SAA-IA-16-23506
	624 23114	Orbital Sciences Corporation	Space Vehicle Mockup Facility (SVMF) Floor Space for the Orbital ATK Cygnus Mockup	1/19/2017	1/19/2022	Non-Reimbursable	\$173,543 JSC	SAA-CA-16-23114
(	625 23020	BAYLOR COLLOGE OF MEDICINE	Collaborative Research on Health Care Infrastructure in Remote Settings	7/6/2017	7/6/2022	Non-Reimbursable	\$0 JSC	SAA-SA-16-23020

ROW NO.	PAM ID NUMBER	PARTNER NAME	TITLE/PURPOSE	SIGNATURE DATE	EXPIRATION DATE	TYPE OF AGREEMENT	TOTAL ESTIMATED CUMULATIVE DOLLAR VALUE FOR AGREEMENT	CENTER	CENTER TRACKING NUMBER (IF ANY)
626	22998	The Longhorn Project	The Center For Agriculture Science and Engineering Laboratory	10/1/2016	10/1/2021	Non-Reimbursable	\$44,657	JSC	SAA-JA-16-22998
627	19449	Jacobs Technology Inc.	Annex 14 to NASA JSC Non-Government Use Of Facilities l	.3/12/2015	4/30/2022	Reimbursable		JSC	SAA-EA-15-19449
628	19348	Jacobs Technology Inc.	annex to NASA JSC Non-Government Use Of Facilities Uml	3/10/2015	4/30/2022	Reimbursable		JSC	SAA-EA-15-19348
629	18884	United Launch Alliance	COMMERCIAL SPACE CAPABILITIES COLLABORATION	12/18/2014	6/30/2022	Non-Reimbursable	\$72,175,363	JSC	SAA-QA-14-18884
630	18883	SpaceX	COMMERCIAL SPACE CAPABILITIES COLLABORATION	12/18/2014	3/31/2022	Non-Reimbursable	\$3,675,899	JSC	SAA-QA-14-18883

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63	31 18881	ATK SPACE SYSTEMS INC	COMMERCIAL SPACE CAPABILITIES COLLABORATION	12/18/2014	12/31/2022	Non-Reimbursable	\$1,918,680 JSC	SAA-QA-14-18881
63	32 17138	Jacobs Technology Inc.	Annex 11 to NASA JSC Non-Government Use Of Facilities U	.3/19/2014	4/30/2022	Reimbursable	JSC	SAA-EA-14-17138
63	33 16521	The Houston Zoo	Attwater's Prairie Chicken Project	5/12/2014	5/12/2024	Non-Reimbursable	\$46,152 JSC	SAA-JA-13-16521
63	34 15032	Jacobs Technology Inc.	Annex 4 to NASA JSC Non-Government Use Of Facilities U	6/28/2013	4/30/2022	Reimbursable	JSC	SAA-EA-13-15032
63	35 14945	Jacobs Technology Inc.	Annex 3 to NASA JSC Non-Government Use Of Facilities U	<sup>-</sup> 6/28/2013	4/30/2022	Reimbursable	JSC	SAA-EA-13-14945

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63	36 14944	Jacobs Technology Inc.	Annex 2 to NASA JSC Non-Government Use Of Facilities Un	6/10/2013	4/30/2022	Reimbursable	JSC	SAA-EA-13-14944
63	37 14708	Jacobs Technology Inc.	Annex 1 to NASA JSC Non-Government Use Of Facilities U	6/11/2013	4/30/2022	Reimbursable	JSC	SAA-EA-13-14708
63	88 14705	Jacobs Technology Inc.	NASA JSC Non-Government Use Of Facilities Umbrella Agre	5/13/2013	4/30/2022	Reimbursable	JSC	SAA-EA-13-14705
63	35549	AMENTUM SERVICES, INC.	KCA-4662-17 Rev Basic, Annex 17 to Fully Reimbursable U	10/25/2021	9/30/2022	Reimbursable	KSC	KCA-4662-17 Rev Ba
64	0 35471	SPACE EXPLORATION TECHNOLOGIES CORP	KCA-4696 Rev Basic, License Between the NASA KSC and the Space Exploration Technologies Corporation	10/5/2021	4/5/2022	Non-Reimbursable	411 K CI	KCA-4696 Rev Basic

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64	1 35467	ASRC Federal Data Solutions	KCA-4559-36 Rev. Basic, Annex 36 to Fully Reimbursable U	9/30/2021	2/28/2023	Reimbursable	KSC	KCA-4559-36 Rev. B
64	2 35443	ASRC Federal Data Solutions	KCA-4559-35 Rev. Basic, Annex 35 to Fully Reimbursable U	9/30/2021	9/30/2022	Reimbursable	KSC	KCA-4559-35 Rev. B
64	3 35389	Blue Origin Florida, LLC	KCA-4555-17 Rev Basic annex to Fully Reimbursable Umbre	9/15/2021	12/3/2023	Reimbursable	KSC	KCA-4555-17 Rev Ba
64	4 35327	SPACE EXPLORATION TECHNOL	_C KCA-4513-24, annex to Fully Reimbursable Space Act Umbr	9/10/2021	9/30/2022	Reimbursable	KSC	KCA-4513-24
64	5 35282	ASRC Federal Data Solutions	KCA-4559-34 Rev Basic, Annex 34 to Fully Reimbursable Ur	<sup>-</sup> 9/20/2021	2/28/2023	Reimbursable	KSC	KCA-4559-34 Rev Ba

ROW NO.	PAM ID NUMBEI	PARTNER NAME	TITLE/PURPOSE	SIGNATURE DATE	EXPIRATION DATE	TYPE OF AGREEMENT	COMULATIVE DOLLAR CENTER	CENTER TRACKING NUMBER (IF ANY)
	646 35281	ASRC Federal Data Solutions	KCA-4559-33 Rev Basic, Annex 33 to Fully Reimbursable U	r 9/30/2021	2/28/2023	Reimbursable	KSC	KCA-4559-33 Rev Ba
	647 35280	AMENTUM SERVICES, INC.	KCA-4662-16 Rev Basic, Annex 16 to Fully Reimbursable U	r 10/19/2021	9/30/2022	Reimbursable	KSC	KCA-4662-16 Rev Ba
	648 35279	AMENTUM SERVICES, INC.	KCA-4662-15 Rev Basic, Annex 15 to Fully Reimbursable U	r 10/7/2021	9/30/2022	Reimbursable	KSC	KCA-4662-15 Rev Ba
	649 35278	AMENTUM SERVICES, INC.	KCA-4662-14 Rev Basic, Annex 14 to Fully Reimbursable U	r 10/7/2021	9/30/2022	Reimbursable	KSC	KCA-4662-14 Rev Ba
	650 35277	AMENTUM SERVICES, INC.	KCA-4662-13 Rev Basic, Annex 13 to Fully Reimbursable U	r 10/7/2021	9/30/2022	Reimbursable	KSC	KCA-4662-13 Rev Ba

ROW NO.	PAM ID NUMBER	PARTNER NAME	TITLE/PURPOSE	SIGNATURE DATE	EXPIRATION DATE	TYPE OF AGREEMENT	CUMULATIVE DOLLAR CENTER	CENTER TRACKING NUMBER (IF ANY)
6	551 35276	AMENTUM SERVICES, INC.	KCA-4662-12 Rev Basic, Annex 12 to Fully Reimbursable Ur	10/7/2021	9/30/2022	Reimbursable	KSC	KCA-4662-12 Rev Ba
6	35269	Jacobs Technologies Inc.	KCA-4604-6 Rev Basic, Annex 6 to Fully Reimbursable Umb	9/29/2021	9/30/2022	Reimbursable	KSC	KCA-4604-6 Rev Bas
6	553 35215	HSG, LLC d/b/a HERNDON SOLUT	Π KCA-4660-14 Rev. Basic, Annex 14 to Fully Reimbursable U	9/30/2021	9/30/2022	Reimbursable	KSC	KCA-4660-14 Rev. Ba
6	554 35213	HSG, LLC d/b/a HERNDON SOLUT	Π KCA-4660-13 Rev. Basic, Annex 13 to Fully Reimbursable U	9/30/2021	9/30/2022	Reimbursable	KSC	KCA-4660-13 Rev. Ba
6	555 35212	Blue Origin	KCA-4690 Rev. Basic NASA KSC License to Blue Origin for Topographical Surveying, Environment Investigations, Utility Locates, and Geotechnical Boring		2/25/2023	Non-Reimbursable	\$0 KSC	KCA-4690

ROW NO.	PAM ID NUMBER	PARTNER NAME TITLE/PURPOSE	SIGNATURE DATE	EXPIRATION DATE	TYPE OF AGREEMENT	COMULATIVE DOLLAR CENTER	CENTER TRACKING NUMBER (IF ANY)
	656 35202	HSG, LLC d/b/a HERNDON SOLUTI KCA-4660-12 Rev. Basic, Annex 12 to Fully Reimbursable U	9/30/2021	9/30/2022	Reimbursable	KSC	KCA-4660-12 Rev. B
	657 35201	HSG, LLC d/b/a HERNDON SOLUTI KCA-4660-11 Rev. Basic, Annex 11 to Fully Reimbursable U	9/23/2021	9/30/2022	Reimbursable	KSC	KCA-4660-11 Rev. B
	658 35200	HSG, LLC d/b/a HERNDON SOLUTI KCA-4660-10 Rev. Basic, Annex 10 to Fully Reimbursable U	9/30/2021	9/30/2022	Reimbursable	KSC	KCA-4660-10 Rev. B
	659 35055	HSG, LLC d/b/a HERNDON SOLUTI KCA-4660-9 Rev. Basic, Annex 9 to Fully Reimbursable Uml	9/30/2021	9/30/2022	Reimbursable	KSC	KCA-4660-9 Rev. Ba
	660 34926	AMENTUM SERVICES, INC. KCA-4662-11 Rev Basic, Annex 11 to Fully Reimbursable Ur	7/14/2021	9/30/2021	Reimbursable	KSC	KCA-4662-11 Rev Ba

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661	34809	Florida Institute of Technology, Inc.	KCA-4683-1, Rev Basic Annex 1 to Non-Reimbursable Space Act Agreement (NRSAA) with Florida Institute of Technology, Inc. (Florida Tech) for Joint Research on the Performance of Crop Species Grown in Lunar and Martian Simulants	10/8/2021	10/8/2024	Non-Reimbursable	\$1	KSC	KCA-4683-1 Rev Basic
662	34808	Florida Institute of Technology, Inc.	KCA-4683, Rev Basic of Non-Reimbursable Space Act Agreement (NRSAA) with Florida Institute of Technology, Inc. (Florida Tech) for Collaborative Research, Education and Outreach Activities	10/8/2021	10/8/2026	Non-Reimbursable	\$0	KSC	KCA-4683 Rev Basic
663	34793	Orbite, Inc.	KCA-4679 Rev. Basic, License To Orbite, Inc For Topographical Surveying, Environmental Investigations, Utility Locates, And Geotechnical Borings	8/9/2021	2/9/2023	Other		KSC	KCA-4679 Rev Basic
664	34757	SPACE EXPLORATION TECHNOLO	CKCA-4513-23 Rev Basic, Annex No 23 to Fully Reimbursabl	e 6/4/2021	9/30/2022	Reimbursable		KSC	KCA-4513-23 Rev Ba
665	34751	Virgin Orbit	KCA-4680, Rev Basic, Annex 4 between NASA KSC and Vi	7/20/2021	7/20/2022	Reimbursable		KSC	KCA-4680 Rev Basic

ROW NO.	PAM ID NUMBER	PARTNER NAME	TITLE/PURPOSE	SIGNATURE DATE	EXPIRATION DATE	TYPE OF AGREEMENT	VALUE FOR CENTER	CENTER TRACKING NUMBER (IF ANY)
	666 34588	Relativity Space, Inc.	KCA-4678-1, Revision Basic Annex 1 to the Reimbursable S	7/27/2021	7/27/2026	Reimbursable	KSC	KCA 4678-1 Rev. Bas
	667 34587	Relativity Space, Inc.	KCA-4678 Rev. Basic Reimbursable Space Act Agreement (	7/27/2021	7/27/2026	Reimbursable	KSC	KCA-4678 Rev. Basid
	668 34568	Jacobs Technologies Inc.	KCA-4604-5 Rev Basic, Annex 5 to Fully Reimbursable Umb	4/28/2021	9/30/2021	Reimbursable	KSC	KCA-4604-5 Rev Bas
	669 34267	Blue Origin Florida, LLC	KCA-4555-15 Rev Basic, Annex 15 annex to Fully Reimburs.	3/16/2021	12/3/2023	Reimbursable	KSC	KCA-4555-15 Rev Ba
	670 34253	AMENTUM SERVICES, INC.	KCA-4662-10 Rev Basic, Annex 10 to Fully Reimbursable Ur	<sup>-</sup> 4/14/2021	9/30/2021	Reimbursable	KSC	KCA-4662-10 Rev Ba

ROW NO.	PAM ID NUMBER	PARTNER NAME	TITLE/PURPOSE	SIGNATURE DATE	EXPIRATION DATE	TYPE OF AGREEMENT	VALUE FOR CENTER	CENTER TRACKING NUMBER (IF ANY)
	671 34194	AMENTUM SERVICES, INC.	KCA-4662-9 Rev Basic, Annex 9 to Fully Reimbursable Umb	3/5/2021	9/30/2021	Reimbursable	KSC	KCA-4662-9 Rev Bas
	672 34155	Florida Department of Transportation	KCA-4674 Rev Basic License Agreement-Indian River Bridge Demolition and Construction Project	6/15/2021	6/15/2026	Non-Reimbursable		KCA-4674 Rev Basic
	673 34125	Blue Origin Florida, LLC	KCA-4555-13, Annex 13 to Fully Reimbursable Umbrella SA	2/26/2021	12/3/2023	Reimbursable	KSC	KCA-4555-13 Rev Ba
	674 34123	Blue Origin Florida, LLC	KCA-4555-12 Rev Basic, Annex 12 to Fully Reimbursable Ur	2/10/2021	9/30/2022	Reimbursable	KSC	KCA-4555-12 Rev Ba
	675 34110	Pine Island Investment Group, LLC	KCA-4653, Revision Basic for Real Property License with Pine Island Investment Group, LLC	4/7/2021	4/7/2026	Non-Reimbursable		KCA-4653 Rev Basic

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	676 34023	Firefly Aerospace Inc.	KCA-4671-1, Revision Basic Annex 1 to the Reimbursable S	3/2/2021	3/2/2023	Reimbursable	KSC	KCA-4671-1 Rev. Ba
	677 34022	Firefly Aerospace Inc.	KCA-4671, Rev. Basic Fully Reimbursable Umbrella SAA Be	3/1/2021	3/1/2026	Reimbursable	KSC	KCA-4671 Rev. Basid
	678 33992	PAE-SGT Partners LLC	KCA-4608-1 Rev Basic, Annex 1 to Fully Reimbursable Umb	9/15/2021	9/30/2021	Reimbursable	KSC	KCA-4608-1 Rev Bas
	679 33991	PAE-SGT Partners LLC	KCA-4608 Rev Basic, Fully Reimbursable Umbrella SAA bet	9/15/2021	3/31/2023	Reimbursable	KSC	KCA-4608 Rev Basic
	680 33890	Blue Origin Florida, LLC	KCA-4555-14, annex 14 to Fully Reimbursable Umbrella SA/	42/10/2021	12/3/2023	Reimbursable	KSC	KCA-4555-14 Rev B

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68	1 33886	ASRC Federal Data Solutions	KCA-4559-31 Rev Basic, Annex 31 to Fully Reimbursable Ur	·1/6/2021	9/30/2021	Reimbursable	KSC	KCA-4559-31 Rev Ba
68	2 33885	ASRC Federal Data Solutions	Annex 30 to Fully Reimbursable Umbrella SAA between NAS	12/18/2020	9/30/2021	Reimbursable	KSC	KCA-4559-30 Rev Ba
68	3 33871	ASRC Federal Data Solutions	Annex 28 to Fully Reimbursable Umbrella SAA between NAS	12/17/2020	9/30/2021	Reimbursable	KSC	KCA-4559-28 Rev Ba
68	4 33859	AMENTUM SERVICES, INC.	KCA-4662-8, Annex 8 to Fully Reimbursable Umbrella SAA b	:1/12/2021	9/30/2021	Reimbursable	KSC	KCA-4662-8 Rev Bas
68	5 33792	ORBITAL ATK, INC	KCA-4500-11, Annex 11 to Reimbursable Umbrella SAA bet	12/15/2020	1/31/2022	Reimbursable	KSC	KCA-4500-11 Rev Ba

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686	33756	AMENTUM SERVICES, INC. KCA-4662-7 Rev Basic	, Annex 7 to Fully Reimbursable Umb	3/3/2021	9/30/2021	Reimbursable	KSC	KCA-4662-7 Rev Bas
687	33736	HSG, LLC d/b/a HERNDON SOLUTI Annex 8 to Fully Reimb	oursable Umbrella SAA between NAS	11/16/2020	9/30/2021	Reimbursable	KSC	KCA-4660-8 Rev Bas
688	33726	SPACE EXPLORATION TECHNOLC KCA-4513-22, Annex 2	2 to Fully Reimbursable Space Act U	11/16/2020	9/30/2022	Reimbursable	KSC	KCA-4513-22 Rev Ba
689	33677	HSG, LLC d/b/a HERNDON SOLUTI Annex 7 to Fully Reimb	oursable Umbrella SAA between NAS	11/16/2020	9/30/2021	Reimbursable	KSC	KCA-4660-7 Rev Bas
690	33641	HSG, LLC d/b/a HERNDON SOLUTI Annex 5 to Fully Reimb	oursable Umbrella SAA between NAS	11/2/2020	9/30/2021	Reimbursable	KSC	KCA-4660-5 Rev Bas

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691	33633	ASRC Federal Data Solutions	Annex 27 to Fully Reimbursable Umbrella SAA between NAS	10/28/2020	9/30/2021	Reimbursable	KSC	KCA-4559-27 Rev Ba
692	33609	AMENTUM SERVICES, INC.	Annex 6 to Fully Reimbursable Umbrella SAA between NASA	411/12/2020	9/30/2021	Reimbursable	KSC	KCA-4662-6 Rev Bas
693	33608	AMENTUM SERVICES, INC.	Annex 5 to Fully Reimbursable Umbrella SAA between NAS/	11/12/2020	9/30/2021	Reimbursable	KSC	KCA-4662-5 Rev Bas
694	33607	AMENTUM SERVICES, INC.	Annex 4 to Fully Reimbursable Umbrella SAA between NASA	11/12/2020	9/30/2021	Reimbursable	KSC	KCA-4662-4 Rev Bas
695	33593	AMENTUM SERVICES, INC.	Annex 3 to Fully Reimbursable Umbrella SAA between NAS/	11/12/2020	9/30/2021	Reimbursable	KSC	KCA-4662-3 Rev Bas

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	696 33592	AMENTUM SERVICES, INC.	Annex 2 to Fully Reimbursable Umbrella SAA between NASA	11/12/2020	9/30/2021	Reimbursable	KSC	KCA-4662-2 Rev Bas
	697 33588	UNITED LAUNCH ALLIANCE, LLC	KCA-4556-34, Annex 34 to Fully Reimbursable SAA between	10/21/2020	2/21/2023	Reimbursable	KSC	KCA-4556-34 Rev Ba
	698 33570	HSG, LLC d/b/a HERNDON SOLUT	Thannex 6 to Fully Reimbursable Umbrella SAA between NAS/	11/2/2020	9/30/2021	Reimbursable	KSC	KCA-4660-6 Rev Bas
	699 33564	THE BOEING COMPANY	KCA-4515-9, Annex 9 to Reimbursable Umbrella SAA between	11/17/2020	9/30/2022	Reimbursable	KSC	KCA-4515-9 Rev Bas
	700 33561	HSG, LLC d/b/a HERNDON SOLUT	TI Annex 4 to Fully Reimbursable Umbrella SAA between NAS	10/21/2020	9/30/2021	Reimbursable	KSC	KCA-4660-4 Rev Bas

ROW NO.	PAM ID NUMBER	PARTNER NAME TITLE/PURPOSE	SIGNATURE DATE	EXPIRATION DATE	TYPE OF AGREEMENT	VALUE FOR CENTER	CENTER TRACKING NUMBER (IF ANY)
7	701 33551	SPACE EXPLORATION TECHNOLC KCA-4513-21, Annex 21 to Fully Reimbursable Space Act U	r 10/15/2020	9/30/2021	Reimbursable	KSC	KCA-4513-21 Rev Ba
7	702 33540	HSG, LLC d/b/a HERNDON SOLUTI Annex 3 to Fully Reimbursable Umbrella SAA between NAS	<i>I</i> 10/16/2020	9/30/2021	Reimbursable	KSC	KCA-4660-3 Rev Bas
7	703 33494	HSG, LLC d/b/a HERNDON SOLUTI Annex 2 to Fully Reimbursable Umbrella SAA between NAS	<i>I</i> 10/7/2020	9/30/2022	Reimbursable	KSC	KCA-4660-2 Rev Bas
7	704 33461	HSG, LLC d/b/a HERNDON SOLUTI Fully Reimbursable Umbrella SAA between NASA and HSG	, 10/7/2020	9/30/2022	Reimbursable	KSC	KCA-4660 Rev Basic
7	705 33421	AMENTUM SERVICES, INC. Annex 1 to Fully Reimbursable Umbrella SAA between NAS	F11/2/2020	9/30/2021	Reimbursable	KSC	KCA-4662-1 Rev Bas

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	706 33420	AMENTUM SERVICES, INC.	Fully Reimbursable Umbrella SAA between NASA and Amer	10/29/2020	9/30/2022	Reimbursable	KSC	KCA-4662 Rev Basic
	707 33413	Jacobs Technologies Inc.	Annex 4 to Fully Reimbursable Umbrella SAA between NASA	9/24/2020	9/30/2021	Reimbursable	KSC	KCA-4604-4 Rev Bas
	708 33334	THE BOEING COMPANY	KCA-4515-8, Annex 8 to Reimbursable Umbrella SAA betwe	9/15/2020	8/21/2023	Reimbursable	KSC	KCA-4515-8 Rev Bas
	709 33316	The Astronauts Memorial Foundation	KCA-4659, Rev. Basic, Lease Agreement for Center for Space Education (CSE) Space at the Astronauts Memorial Foundation (AMF)	9/30/2020	9/30/2022	Non-Reimbursable		KCA-4659 Rev Basic
	710 33179	SPACE EXPLORATION TECHNOL	_CKCA-4513-20, Annex 20 to Fully Reimbursable Space Act Ui	8/25/2020	9/30/2021	Reimbursable	KSC	KCA-4513-20 Rev Ba

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	711 33158	FLORIDA POWER & LIGHT	KCA-4655-1, Revision Basic Annex 1 to Reimbursable Spac	6/17/2021	6/17/2022	Reimbursable	KSC	KCA-4655-1 Rev Bas
	712 33157	FLORIDA POWER & LIGHT	KCA-4655, Rev. Basic to Fully Reimbursable Umbrella Spac	6/17/2021	6/16/2026	Reimbursable	KSC	KCA-4655, Rev. Basi
	713 32784	UNITED LAUNCH ALLIANCE, LLC	KCA-4556-33, Annex to Fully Reimbursable SAA between U	16/11/2020	2/21/2023	Reimbursable	KSC	KCA-4556-33 Rev Ba
	714 32750	KT Engineering Corporation	KCA-4650-1, Annex No. 1 to the Fully Reimbursable Umbrel	9/1/2020	9/1/2025	Reimbursable	KSC	KCA-4650-1 Rev Bas
	715 32749	KT Engineering Corporation	KCA-4650, Rev. Basic Fully Reimbursable Umbrella SAA Be	9/1/2020	9/1/2025	Reimbursable	KSC	KCA-4650 Rev Basic

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	716 32438	Blue Origin Florida, LLC	KCA-4555-11, Annex to Fully Reimbursable Umbrella SAA B	4/10/2020	9/30/2021	Reimbursable	KSC	KCA-4555-11
-	717 32270	Florida League of Cities	KCA-4601-2, Annex 2 to Reimbursable Umbrella SAA betwe	5/3/2021	11/3/2023	Reimbursable	KSC	KCA-4601-2 Rev Bas
-	718 32262	Space Perspective, Inc.	KCA-4641-1, Annex No. 1 to the Fully Reimbursable Umbrel	4/27/2020	4/27/2022	Reimbursable	KSC	KCA-4641-1 Rev Bas
	719 32261	Space Perspective, Inc.	KCA-4641, Rev. Basic Fully Reimbursable Umbrella SAA Be	4/27/2020	4/27/2025	Reimbursable	KSC	KCA-4641 Rev Basic
-	720 32230	UNITED LAUNCH ALLIANCE, LLC	KCA-4556-31,Annex 31 to Fully Reimbursable SAA between	3/13/2020	2/21/2023	Reimbursable	KSC	KCA-4556-31 Rev Ba

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	721 32039	Blue Origin Florida, LLC	Annex 8 to Fully Reimbursable Umbrella SAA Between NAS	2/21/2020	12/3/2023	Reimbursable	KSC	KCA-4555-8 Rev Bas
	722 31927	The Astronauts Memorial Foundation	on KCA-4638, Revision Basic for Reimbursable Space Act Agre	6/5/2020	6/4/2025	Reimbursable	KSC	KCA-4638
	723 31878	Blue Origin Florida, LLC	Annex No. 7 to Fully Reimbursable Umbrella SAA Between N	1/27/2020	12/3/2023	Reimbursable	KSC	KCA-4555-7 Rev Bas
	724 31537	UNITED LAUNCH ALLIANCE, LLC	Annex No. 28 to Fully Reimbursable SAA between United La	11/14/2019	2/21/2023	Reimbursable	KSC	KCA-4556-28 Rev Ba
	725 31382	THE BOEING COMPANY	KCA-4515-7, Reimbursable Umbrella SAA between NASA K	10/17/2019	8/20/2023	Reimbursable	KSC	KCA-4515-7 Rev. Bas

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	726 31293	UNITED LAUNCH ALLIANCE, LLC	Annex No. 27 to Fully Reimbursable SAA between United La	9/25/2019	2/21/2023	Reimbursable	KSC	KCA-4556-27 Rev Ba
	727 31241	Eastern Florida State College	High Schools United with NASA to Create Hardware (HUNCH)	10/22/2019	10/22/2024	Non-Reimbursable	\$28,331 KSC	KCA-4629
	728 31127	THE BOEING COMPANY	Annex No. 3 to Reimbursable Umbrella SAA between NASA	9/13/2019	8/21/2023	Reimbursable	KSC	KCA-4515-3 Rev Bas
	729 31059	RUAG Space USA, Inc	Annex No. 3 to Reimbursable Umbrella SAA with RUAG SPA	10/2/2019	10/2/2021	Reimbursable	KSC	KCA-4544-3 Rev Bas
	730 30997	SPACE EXPLORATION TECHNOL	CAnnex No. 18 to Fully Reimbursable Space Act Umbrella Ag	9/16/2019	9/30/2022	Reimbursable	KSC	KCA-4513-18 Rev Ba

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	731 30833	SPACE COAST MACHINIST APPRENTICESHIP PROGRAM, INC.	KCA-4625, Nonreimbursable Space Act Agreement Between the National Aeronautics and Space Administration John F. Kennedy Space Center and Space Coast Machinist Apprenticeship Program for High Schools United with NASA to Create Hardware (HUNCH) Program	10/24/2019	10/24/2024	Non-Reimbursable	\$28,397 KSC	KCA-4625 Rev Basic
	732 30770	UNITED LAUNCH ALLIANCE, LLC	Annex No. 24 to Fully Reimbursable SAA between United La	7/19/2019	2/21/2023	Reimbursable	KSC	KCA-4556-24 Rev Ba
	733 30494	UNIVERSITY OF DAYTON	Annex No. 2 to Reimbursable Umbrella SAA between KSC a	9/11/2019	12/22/2022	Reimbursable	KSC	KCA-4550-2 Rev Bas
	734 30480	Full Sail University	Nonreimbursable Space Act Agreement Between The National Aeronautics and Space Administration John F. Kennedy Space Center and Full Sail University for Furtherance of STEM Learning by Providing a Senior Software Design Project	12/9/2019	12/9/2021	Non-Reimbursable	\$20,058 KSC	KCA-4628 Rev Basic
	735 30212	Blue Origin Florida, LLC	Annex No.5 to Fully Reimbursable Umbrella SAA Between N	4/25/2019	12/3/2023	Reimbursable	KSC	KCA-4555-5 Rev Bas

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	736 30165	Jacobs Technologies Inc.	Fully Reimbursable Umbrella SAA between NASA and Jacob	4/29/2019	9/30/2022	Reimbursable	KSC	KCA-4604 Rev Basic
	737 30047	Blue Origin Florida, LLC	Annex No. 4 to Fully Reimbursable Umbrella SAA Between N	4/5/2019	12/3/2023	Reimbursable	KSC	KCA-4555-4 Rev Bas
	738 29903	ASTRONAUTS MEMORIAL FOUNDATION	Nonreimbursable SAA between NASA and the Astronaut Memorial Foundation for a NASA Exploration Station	4/5/2019	4/5/2024	Non-Reimbursable	41 USO 830 IK CI.	KCA-4605 Rev Basic
	739 29841	Winston-Salem State University	KSC Food Production and Winston-Salem State University	7/24/2019	7/24/2023	Non-Reimbursable		KCA-4611 Rev Basic
	740 29814	Florida League of Cities	Reimbursable Umbrella SAA between NASA KSC and Florid	7/1/2019	7/1/2024	Reimbursable	KSC	KCA-4601 Rev Basic

ROW NO.	PAM ID NUMBER	PARTNER NAME	TITLE/PURPOSE	SIGNATURE DATE	EXPIRATION DATE	TYPE OF AGREEMENT	IVALUE EOD	CENTER TRACKING NUMBER (IF ANY)
7	41 29804	Astrotech Space Operations, LLC	KCA-4603, Nonreimbursable Space Act Agreement Between NASA KSC and Astrotech Space Operations, LLC for Reciprocal Access to Fiber Optic Communications Circuit	8/21/2019	8/21/2024	Non-Reimbursable	1 \$1/7 855 KSC	KCA-4603 Rev. Basic
7	42 29787	Blue Origin Florida, LLC	Annex No. 3 to Fully Reimbursable Umbrella SAA Between N	2/14/2019	12/3/2023	Reimbursable	KSC	KCA-4555-3 Rev Bas
7	43 29729	Blazing Trails	KCA-4606, Nonreimbursable Space Act Agreement Between the National Aeronautics and Space Administration John F. Kennedy Space Center and Blazing Trails for High Schools United with NASA to Create Hardware (HUNCH) Program		5/8/2024	Non-Reimbursable		KCA-4606 Rev Basic
7	44 29653	Pressure Dynamic Consultants PD0	C Research and Development of Hydrogen Liquid to Gas Conv	6/5/2019	9/30/2022	Reimbursable	KSC	KCA-4598-1 Rev Bas
7	45 29652	Pressure Dynamic Consultants PD0	C Reimbursable Umbrella SAA with PDC for High Pressure Hy	6/5/2019	6/4/2024	Reimbursable	KSC	KCA-4598 Rev Basic

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	746 29609	Blue Origin Florida, LLC	Annex No. 2 to Fully Reimbursable Umbrella SAA Between N	12/27/2018	12/3/2023	Reimbursable	KSC	KCA-4555-2 Rev Bas
	747 29503	University of North Dakota	Nonreimbursable Space Act Agreement with University of North Dakota MISSE-11 Mission for Spacesuit Material Sample	12/13/2018	12/13/2023	Non-Reimbursable		KCA-4595 Rev Basic
	748 29481	UNITED LAUNCH ALLIANCE, LLC	Annex No.13 to Fully Reimbursable SAA between United La	.12/3/2018	2/21/2023	Reimbursable	KSC	KCA-4556-13 Rev Ba
	749 29407	Mayo Clinic Jacksonville	Nonreimbursable SAA with Mayo Clinic Jacksonville for Stem Cell Research Project - SpaceX CRS-16 Mission	11/26/2018	11/26/2021	Non-Reimbursable		KCA-4593 Rev Basic
	750 29404	Level 3 Communications, LLC	Space Act Agreement between NASA, KSC and Level 3 Communications LLC for Use of Various Fiber Optics Terminals	2/22/2019	2/22/2024	Non-Reimbursable	40 KCC	KCA-4586 Rev Basic

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	751 29277	BLUE ORIGIN, LLC	Annex 1 for Fully Reimbursable Umbrella SAA Between NAS	312/3/2018	12/3/2023	Reimbursable	KSC	KCA-4555-1 Rev. Bas
	752 29276	Blue Origin Florida, LLC	Fully Reimbursable Umbrella SAA Between NASA KSC and	12/3/2018	12/3/2023	Reimbursable	KSC	KCA-4555 Rev. Basid
	753 29263	THE BOEING COMPANY	Annex No. 4 to Reimbursable Umbrella SAA between NASA	10/1/2018	8/21/2023	Reimbursable	KSC	KCA-4515-4 Rev Bas
	754 29191	Volusia County Schools	KCA-4591, Nonreimbursable SAA between NASA, KSC and Volusia County Schools for High School Students United with NASA to Create Hardware (HUNCH) Program Participation with Volusia County Schools	3/7/2019	3/7/2024	Non-Reimbursable	\$70,444 KSC	KCA-4591 Rev Basic
	755 29174	Lake Technical College	KCA-4590, Nonreimbursable SAA between NASA, KSC and Lake Technical College for High School Students United with NASA to Create Hardware (HUNCH) Program Participation with Lake Technical College (LTC)	3/15/2019	3/15/2024	Non-Reimbursable	\$67,904 KSC	KCA-4590 Rev Basic

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	756 29094	UNITED LAUNCH ALLIANCE, LLC Annex No. 11 to Fully Reimbursable SAA between United La	a 9/13/2018	2/21/2023	Reimbursable	KSC	KCA-4556-11 Rev Ba
	757 29093	SPACE EXPLORATION TECHNOLC Annex No. 11 to Fully Reimbursable Space Act Umbrella Ag	r 9/24/2018	9/30/2022	Reimbursable	KSC	KCA-4513-11 Rev Ba
	758 29072	SPACE EXPLORATION TECHNOLC Annex No. 9 to Fully Reimbursable Space Act Umbrella Agre	9/11/2018	11/17/2022	Reimbursable	KSC	KCA-4513-9 Rev Bas
	759 29049	UNITED LAUNCH ALLIANCE, LLC Annex No. 7 to Fully Reimbursable SAA between United Lau	ı 9/11/2018	2/21/2023	Reimbursable	KSC	KCA-4556-7 Rev Bas
	760 28929	ORBITAL ATK, INC  Annex No. 1 to Reimbursable Umbrella SAA between KSC a	a 8/23/2018	8/23/2023	Reimbursable	KSC	KCA-4500-1 Rev Bas

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	761 28928	ORBITAL ATK, INC	Reimbursable Umbrella SAA between KSC and Orbital Scier	8/23/2018	8/23/2023	Reimbursable	KSC	KCA-4500 Rev Basic
	762 28870	THE BOEING COMPANY	Annex No. 1 to Reimbursable Umbrella SAA between NASA	8/21/2018	8/21/2023	Reimbursable	KSC	KCA-4515-1 Rev Bas
	763 28869	THE BOEING COMPANY	Reimbursable Umbrella SAA between NASA KSC and The E	8/21/2018	8/21/2023	Reimbursable	KSC	KCA-4515 Rev Basic
	764 28819	Polk State College	Nonreimbursable SAA between NASA and Polk State College for High School Students United with NASA to Create Hardware (HUNCH) Program Participation	8/6/2018	8/6/2023	Non-Reimbursable		KCA-4582 Rev Basic
	765 27999	SPACE FLORIDA, AN INDEPENDI	ENAnnex No.8 to Reimbursable Space Act Agreement with Spa	4/18/2018	12/14/2022	Reimbursable	KSC	KCA-4548-8 Rev Bas

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	766 27912	University of Florida	Annex No. 1 to Development of Biological Imaging Systems for Growth, Biological Assessment of Flight Hardware and Space Biology Studies in Space relevant Environments with University of Florida (KCA-4572-1)	11/14/2018	11/14/2023	Non-Reimbursable	\$129,077 KSC	KCA-4572-1 Rev Basic
	767 27911	University of Florida	Nonreimbursable Space Act Agreement for Collaborative Research, Technology Transfer, Academic Engagement, and Outreach Activities	11/14/2018	11/14/2023	Non-Reimbursable	\$0 KSC	KCA-4572 Rev Basic
	768 27649	SPACE EXPLORATION TECHNOL	.CAnnex No. 10 to Fully Reimbursable Space Act Umbrella Agi	2/23/2018	11/17/2022	Reimbursable	KSC	KCA-4513-10 Rev Ba
	769 27641	ASRC Federal Data Solutions	Fully Reimbursable Umbrella SAA between NASA and ASRO	2/26/2018	2/28/2023	Reimbursable	KSC	KCA-4559 Rev Basic
	770 27639	UNITED LAUNCH ALLIANCE, LLC	Annex No. 1 to Fully Reimbursable SAA between United Lau	2/22/2018	2/22/2023	Reimbursable	KSC	KCA-4556-1 Rev Bas

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771	27632	UNITED LAUNCH ALLIANCE, LLC Fully Reimbursable SAA between United Launch Alliance, LI	. 2/22/2018	2/22/2023	Reimbursable	KSC	KCA-4556 Rev Basic
772	27587	SPACE FLORIDA, AN INDEPENDENAnnex No. 3 to Reimbursable Space Act Agreement with Sp	;2/19/2018	12/14/2022	Reimbursable	KSC	KCA-4548-3 Rev Bas
773	27565	SPACE FLORIDA, AN INDEPENDENAnnex No. 5 to Reimbursable Space Act Agreement with Sp	ŧ 2/13/2018	12/14/2022	Reimbursable	KSC	KCA-4548-5 Rev Bas
774	27564	SPACE FLORIDA, AN INDEPENDENAnnex No. 4 to Reimbursable Space Act Agreement with Sp	2/13/2018	12/14/2022	Reimbursable	KSC	KCA-4548-4 Rev Bas
775	27509	SPACE FLORIDA, AN INDEPENDENAnnex No 9 to Reimbursable Space Act Agreement with Spa	a 1/18/2018	12/14/2022	Reimbursable	KSC	KCA-4548-9 Rev Bas

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	776 27507	SPACE FLORIDA, AN INDEPENDENAnnex No. 6 to Reimbursable Space Act Agreement with Sp.	1/18/2018	12/14/2022	Reimbursable	KSC	KCA-4548-6 Rev Bas
	777 27506	SPACE FLORIDA, AN INDEPENDENAnnex No. 2 to Reimbursable Space Act Agreement with Sp.	1/18/2018	12/14/2022	Reimbursable	KSC	KCA-4548-2 Rev Bas
	778 27290	UNIVERSITY OF DAYTON Reimbursable Umbrella SAA between KSC and University of	12/22/2017	12/22/2022	Reimbursable	KSC	KCA-4550 Rev Basic
	779 27258	SPACE FLORIDA, AN INDEPENDENAnnex No. 1 to Reimbursable Space Act Agreement with Sp.	12/15/2017	12/14/2022	Reimbursable	KSC	KCA-4548-1 Rev Bas
	780 27257	SPACE FLORIDA, AN INDEPENDENReimbursable Space Act Agreement with Space Florida for U	.12/14/2017	12/14/2022	Reimbursable	KSC	KCA-4548 Rev Basic

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781	26866	SPACE EXPLORATION TECHNOLC Annex No. 8 to Fully Reimbursable Space Act Umbrella Agre	12/2/2017	9/30/2022	Reimbursable	KSC	KCA-4513-8 Rev Bas
782	26865	SPACE EXPLORATION TECHNOLOAnnex No. 7 to Fully Reimbursable Space Act Umbrella Agre	12/2/2017	9/30/2022	Reimbursable	KSC	KCA-4513-7 Rev Bas
783	26861	SPACE EXPLORATION TECHNOLO Annex No. 6 to Fully Reimbursable Space Act Umbrella Agre	12/2/2017	9/30/2022	Reimbursable	KSC	KCA-4513-6 Rev Bas
784	26860	SPACE EXPLORATION TECHNOLC Annex No. 5 to Fully Reimbursable Space Act Umbrella Agre	12/2/2017	9/30/2022	Reimbursable	KSC	KCA-4513-5 Rev Bas
785	26859	SPACE EXPLORATION TECHNOLC Annex No. 4 to Fully Reimbursable Space Act Umbrella Agre	12/2/2017	9/30/2022	Reimbursable	KSC	KCA-4513-4 Rev Bas

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	786 26858	SPACE EXPLORATION TECHNOLC Annex No. 3 to Fully Reimbursable Space Act Umbrella Agr	12/2/2017	9/30/2022	Reimbursable	KSC	KCA-4513-3 Rev Bas
	787 26857	SPACE EXPLORATION TECHNOLC Annex No. 2 to Fully Reimbursable Space Act Umbrella Agre	e 12/2/2017	9/30/2022	Reimbursable	KSC	KCA-4513-2 Rev Bas
	788 26856	SPACE EXPLORATION TECHNOLC Annex No. 1 to Fully Reimbursable Space Act Umbrella Agre	e 11/17/2017	11/17/2022	Reimbursable	KSC	KCA-4513-1 Rev Bas
	789 26855	SPACE EXPLORATION TECHNOLC Fully Reimbursable Space Act Umbrella Agreement between	n 11/17/2017	11/17/2022	Reimbursable	KSC	KCA-4513 Rev Basic
	790 26738	Nonreimbursable SAA between NASA and Valencia College Valencia College for High School Students United with NASA to Create Hardware (HUNCH) Program Participation	9/7/2017	9/7/2022	Non-Reimbursable	(1) 1/ 66/ 1201	KCA-4528 Rev Basic

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7	91 26245	PPG Industries, Inc	Reimbursable SAA between NASA and PPG Industries, Inc	f12/20/2017	12/19/2021	Reimbursable	KSC	KCA-4554 Rev Basic
7	92 25982	Canaveral Council of Technical Societies	Nonreimbursable Space Act Agreement with CCTS for the Collaboration on the Annual Space Congress Event	6/14/2017	6/14/2022	Non-Reimbursable	\$162,020 KSC	KCA-4526
7	'93 25967	RUAG Space USA, Inc	Reimbursable Umbrella SAA with RUAG SPACE USA, INC f	9/21/2017	9/21/2022	Reimbursable	KSC	KCA-4544
7	794 25544	University of Puerto Rico	Nonreimbursable Agreement between NASA and Univ Puerto Rico for NASA Educator Resource Center	7/13/2017	7/13/2022	Non-Reimbursable		KCA-4529 Rev Basic
7	'95 24702	Space Exploration Technology Corp	Property Agreement between NASA KSC and SpaceX for the Use of Launch Complex 39 Pad A	4/14/2014	4/14/2034	Other	1201	KCA-4360 Rev Basic

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	796 24609	SEMINOLE COUNTY PUBLIC SCHOOLS	KCA-4517, Nonreimbursable SAA between NASA KSC and the School Board of Seminole County, FL for High School Students United with NASA to Create Hardware (HUNCH) Program Participation	10/19/2017	10/19/2022	Non-Reimbursable	\$277,277 KSC	KCA-4517
	797 24385	Blue Origin, LLC	Fully Reimbursable SAA between Blue Origin, LLC and NAS	3/27/2017	3/27/2022	Reimbursable	KSC	KCA-4514
	798 24320	Brevard County Public Schools	Nonreimbursable SAA between NASA and High School Students United to Create Hardware (HUNCH) Program Participation (Brevard County)	4/21/2017	4/21/2022	Non-Reimbursable	\$539,103 KSC	KCA-4518
	799 23983	Blue Origin	Nonreimbursable SAA between NASA and Blue Origin for Commercial Space Capabilities Collaboration	4/15/2016	9/30/2022	Non-Reimbursable	\$248,453 KSC	KCA-4502
	800 23737	University of the Virgin Islands St. Thomas	Nonreimbursable SAA between University of the VI St. Thomas and NASA for Regional Educator Resource Center	4/19/2017	4/19/2022	Non-Reimbursable	\$45,844 KSC	KCA-4498

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	301 20723	Space Florida	Property Agreement between NASA KSC and Space Florida	6/22/2015	6/22/2045	Reimbursable	KSC	KCA-4412
	302 15983	Air Liquide Large Industries U.S. LP	Grant of Easement for Right of Way for Air Liquide Large Inc	7/25/2013	7/25/2023	Non-Reimbursable	KSC	KCA-4400 Rev Basic
	303 14880	Sierra Nevada Corporation	Space Act Agreement between NASA and Sierra Nevada Corporation for Commercial Crew Integrated Capability (CCiCap)	8/2/2012	8/1/2022	Funded	\$227,500,000 KSC	NNK12MS03S
	10940	Space Florida, an independent spec	ciaReal Property Use Permit between NASA KSC and Space F	10/6/2011	6/1/2027	Reimbursable	KSC	KCA-4311
	805 10479	UNITED LAUNCH ALLIANCE, LLC	SAA between United Launch Alliance and NASA Launch Ser	8/23/2011	12/31/2027	Reimbursable	KSC	KCA-4333

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	806 7016	Florida Power & Light Company	Grant of Easement for Right of Way for Electric Power Trans	s 11/6/2009	11/6/2034	Non-Reimbursable	KSC	KCA-4250 Rev Basic
	3798	SPACE FLORIDA, AN INDEPEND	ENREAL PROPERTY USE PERMIT BETWEEN NASA AND SF	-2/8/2001	2/8/2031	Reimbursable	KSC	KCA-1683-BASIC
	3786	Florida Space Authority	USE PERMIT FOR DESIGN, CONSTRUCTION & ACTIVAT	11/1/1999	12/31/9999	Non-Reimbursable	KSC	KCA-1487-BASIC
	35489	THE BOEING COMPANY	annex to Aerospace Research Development	9/30/2021	2/3/2022	Non-Reimbursable		SAA1-23831, Annex 18
	35139	Radford University	NASA's Modeling and Simulation-Based Educator Professional Development (EPD) Workshop for High School Mathematics	8/25/2021	8/25/2022	Non-Reimbursable	\$24,327 LaRC	SAA1-32792, Annex 2

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8	35070	Varda Space Industries	EDL Analysis Support	8/16/2021	8/16/2023	Reimbursable	LaRC	SAA1-35070
8	34962	Blue Origin, LLC	Hypersonic Aerophysics Support of Blue Origin Reusable Se	8/30/2021	3/30/2022	Reimbursable	LaRC	SAA2-403403
8	34858	Skydio, Inc.	Flight Testing and Integration of UAS for Autonomous Surveillance Inspection and Emergency Response Operations	9/9/2021	9/9/2023	Non-Reimbursable	\$204,568 LaRC	SAA2-403630, Annex 2
8	34769	idoodlEDU, inc	Support of the Cubes in Space Initiative	8/13/2021	8/13/2026	Non-Reimbursable	\$46,355 LaRC	SAA1-34769
8	34717	MASSACHUSETTS INSTITUTE OF TECHNOLOGY	Self-Erectable Lunar Tower for Instrument (SELTI) Development	7/6/2021	7/6/2024	Non-Reimbursable	\$694,498 LaRC	SAA1-34717

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	816 34637	Tethers Unlimited, Inc.	Concept Studies for Low-Cost Debris Collection, Transportation, and In-Space Manufacturing & Assembly	9/28/2021	9/28/2023	Non-Reimbursable	\$89,948 LaRC	SAA1-34637
	817 34377	Old Dominion University	Visual Attention Allocation and Trust in Human-Autonomy Teaming	5/3/2021	5/3/2026	Non-Reimbursable	\$527,702 LaRC	SAA1-34376, Annex 1
	818 34376	Old Dominion University	Collaboration Research, Development, and Testing	5/3/2021	5/3/2026	Non-Reimbursable	\$0 LaRC	SAA1-34376
	819 34374	Honeywell International, Inc.	Acoustic Liner Tests	4/30/2021	4/30/2022	Reimbursable	LaRC	
	820 34369	UNIVERSITY OF WYOMING	Validation and Verification of Unsteady Pressure Measurement Technology	4/28/2021	11/30/2021	Non-Reimbursable	\$25,710 LaRC	SAA1-34369

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82	21 34298	Lehigh University	Mentoring for University Technical Entrepreneurship Program	4/28/2021	4/28/2023	Non-Reimbursable	\$5,371 LaRC	SAA1-34298
82	22 34288	Arizona State University	Investigation of Bio-Inspired Material Surfaces for Dust Mitigation in Space Applications	4/5/2021	4/5/2024	Non-Reimbursable	\$16,910 LaRC	SAA1-34287, Annex 1
82	3 34287	Arizona State University	Collaborative Aerospace Research and Outreach	4/5/2021	4/5/2026	Non-Reimbursable	\$0 LaRC	SAA1-34287
82	24 34273	The Longbow Group, LLC	Beyond Visual Line Of Sight (BVLOS) UAS Flight Corridor Development for Advanced Air Mobility (AAM) High Density Vertiplex Flight Test	4/12/2021	3/12/2022	Non-Reimbursable	\$92,416 LaRC	SAA1-34272, Annex 1
82	25 34272	The Longbow Group, LLC	Unmanned Systems Collaborative testing at Fort Monroe	4/12/2021	4/12/2026	Non-Reimbursable	\$0 LaRC	SAA1-34272

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826	34230	Blue Origin, LLC	Terahertz Scanning Application for Blue Origin	5/12/2021	2/12/2022	Reimbursable		LaRC	SAA1-34230
827	34227	THE REGENTS OF THE UNIVERSITY OF MICHIGAN	Collaborative Research on Model Fusion for Efficient Uncertainty Quantification	4/15/2021	4/15/2022	Non-Reimbursable	\$7,145	LaRC	SAA1-34227
828	34215	Stevens Institute of Technology	Boundary Layer Measurements with Advanced Diagnostics	5/3/2021	9/30/2023	Non-Reimbursable	\$302,727	LaRC	SAA1-34215
829	33846	THE BOEING COMPANY	Integration, Demonstration and Evaluation of Autonomous Systems and Tools	4/19/2021	2/3/2022	Non-Reimbursable	\$282,758	LaRC	SAA1-23831, Annex 16
830	33816	Aerion Corporation	High Mach Aircraft Research, Development and Collaboration	1/19/2021	9/30/2022	Non-Reimbursable	\$530,716	LaRC	SAA1-33813, Annex 1

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831	33813	Aerion Corporation	Aerospace Research Development and Collaboration	1/19/2021	1/19/2026	Non-Reimbursable	\$0	LaRC	SAA1-33813
832	33748	The Boeing Company	Laser Ablation to Improve Adhesive Bonding of Aerospace Structural Thermoplastic Composite Materials	2/3/2021	2/3/2022	Non-Reimbursable	\$43,730	LaRC	SAA1-33748
833	33689	SkyCorp, Inc.	Skycorp Orbital Logistics Vehicle	3/1/2021	3/1/2022	Reimbursable		LaRC	33199
834	33356	OptoKnowledge Systems, Inc.	HYMETS TESTING USING REMOTE SPECTRAL SENSOR	R 1/4/2021	9/30/2022	Reimbursable		LaRC	SAA1-33356
835	33329	Hexcel Corporation	Investigation of Novel Usage of Embedded High Resistance Caps	9/15/2020	6/15/2022	Non-Reimbursable	\$18,976	LaRC	SAA1-33328, Annex 1

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836	33328	Hexcel Corporation	Investigation of Manufacturing Techniques for Novel Acoustic Liners	9/15/2020	9/15/2025	Non-Reimbursable	\$0	LaRC	SAA1-33328
837		The Governors School for Science and Technology	STEM Education Collaboration	9/24/2020	9/24/2023	Non-Reimbursable	\$49,366	LaRC	SAA1-33323
838	33217	UNIVERSITY OF NOTRE DAME	Cone-Traverse Study and testing in the Langley Aerothermodynamics Laboratory	11/12/2020	9/30/2022	Non-Reimbursable	\$242,218	LaRC	SAA1-33217
839	33199	SkyCorp, Inc.	Skycorp Orbital Logistics Vehicle	3/1/2021	3/1/2026	Reimbursable		LaRC	33199
840	33115	National Institute of Aerospace	LABORATORY AND FACILITY USE FOR BNNT RESEARC	C 10/1/2020	9/30/2022	Reimbursable		LaRC	SAA1-31764, Annex :

ROW NO.	PAM ID NUMBER	PARTNER NAME	TITLE/PURPOSE	SIGNATURE DATE	EXPIRATION DATE	TYPE OF AGREEMENT		CENTER TRACKING NUMBER (IF ANY)
84	1 32988	Texas A&M University	System-Wide Safety Research in Advanced Air Mobility (AAM)	3/16/2021	3/16/2026	Non-Reimbursable	\$328,412 LaRC	SAA1-32987, Annex 1
84.	2 32987	Texas A&M University	Advanced Air Mobility Research and Testing	3/16/2021	3/16/2026	Non-Reimbursable	\$0 LaRC	SAA1-32987
84	3 32960	SPECTRAL ENERGIES, LLC (SE)	High-Speed, Noninvasive, Multi-Parameter Laser Diagnostics for Transonic Flows	7/22/2020	7/22/2022	Non-Reimbursable	\$66,615 LaRC	SAA1-32960
84	4 32894	Techmer PM	Evaluation of Lunar Dust Simulant Adhesion on Advanced Commercial Materials	9/15/2020	5/15/2022	Non-Reimbursable	\$14,416 LaRC	SAA1-32894
84	5 32878	Psionic, LLC	Psionic Engineering Test Unit (ETU) Navigation Doppler Lida	7/17/2020	12/16/2021	Reimbursable	LaRC	SAA1-23647, Annex

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84	6 32810	IKONICS Corporation	Evaluation of Facesheets with Variable Geometry	8/13/2020	2/12/2022	Non-Reimbursable	\$6,226 LaRC	SAA1-32809, Annex 1
84	7 32809	IKONICS Corporation	Investigation of Liner Facesheet Manufacturing Innovations	8/13/2020	8/12/2025	Non-Reimbursable	\$0 LaRC	SAA1-32809
84	8 32792	Radford University	Collaboration between NASA and Radford University's Modeling and Simulation Institute	8/3/2020	8/3/2025	Non-Reimbursable	\$0 LaRC	SAA1-32792
84	9 32735	National Institute of Aerospace	Transition Prediction and Control for Blunt Hypersonic Config	27/22/2020	3/31/2023	Reimbursable	LaRC	SAA1-31764, ANNEX
88	50 32708	Lockheed Martin	Free-Spin Test in the NASA LaRC Vertical Spin Tunnel	4/12/2021	4/12/2022	Reimbursable	LaRC	SAA1-32707, Annex

ROW NO.	PAM ID NUMBER	PARTNER NAME	TITLE/PURPOSE	SIGNATURE DATE	EXPIRATION DATE	TYPE OF AGREEMENT	COMULATIVE DOLLAR CENTER	CENTER TRACKING NUMBER (IF ANY)
85	1 32707	Lockheed Martin	Wind Tunnel Testing	4/12/2021	4/12/2026	Reimbursable	LaRC	SAA1-32707
85	2 32700	Worcester Polytechnic Institute	Research Collaboration between Worcester Polytechnic Institute and NASA Langley Research Center	7/20/2020	7/20/2025	Non-Reimbursable	\$65,084 LaRC	SAA1-32700
85	3 32663	Mississippi State University	Stitched/Resin-Infused Composites Material Characterization and Sub-Component Development	10/2/2020	6/20/2022	Non-Reimbursable	\$216,363 LaRC	SAA1-32662, Annex 1
85	4 32662	Mississippi State University	Cooperative Stitched Composite Structures Development and Characterization	10/2/2020	10/2/2025	Non-Reimbursable	\$0 LaRC	SAA1-32662
85	5 32651	JOHNS HOPKINS UNIVERSITY / APPLIED PHYSICS LAB	Dynamic Balance Proof of Concept Study	9/3/2020	9/30/2022	Non-Reimbursable	\$270,898 LaRC	SAA1-32651

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85	56 32644	University of California San Diego	Investigation of bulk metallic glass materials for space applications	11/17/2020	11/17/2022	Non-Reimbursable	\$9,016 LaRC	SAA1-32643- ANNEX 1
88	57 32643	University of California San Diego	COLLABORATIVE AEROSPACE RESEARCH AND OUTREACH	11/17/2020	11/17/2025	Non-Reimbursable	\$0 LaRC	SAA1-32643
88	58 32615	STRATOLAUNCH SYSTEMS COR	PSTRATOLAUNCH TESTING IN THE UNITARY PLAN WIND	8/21/2020	12/6/2021	Reimbursable	LaRC	SAA2-403221, Annex
85	59 32602	Purdue University	Investigation of Wear-Resistant Materials for Space Applications	7/16/2020	7/16/2022	Non-Reimbursable	\$9,016 LaRC	SAA1-32601- ANNEX 1
86	32601	Purdue University	COLLABORATIVE AEROSPACE RESEARCH AND OUTREACH	7/16/2020	7/16/2025	Non-Reimbursable	\$0 LaRC	SAA1-32601

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8	32576	Carnegie Mellon University	Carnegie Melon University (CMU) Collaboration with NASA LaRC on the Research and Development of the Qualification of Additively Manufactured Parts	7/13/2020	7/13/2025	Non-Reimbursable	\$675,580 LaRC	SAA1-32576
8	362 32508	UNIVERSITY OF NORTH DAKOTA	Investigation of Novel Wear-Resistant Materials for Space Applications	7/24/2020	7/24/2023	Non-Reimbursable	\$39,258 LaRC	SAA1-32507
8	32507	UNIVERSITY OF NORTH DAKOTA	Collaborative Aerospace and Research	7/24/2020	7/24/2025	Non-Reimbursable	\$0 LaRC	SAA1-32507
8	32502	BLUE ORIGIN, LLC	Buffet Pressure Database Development	7/9/2020	9/30/2021	Reimbursable	LaRC	SAA1-32502
8	32450	L3HARRIS TECHNOLOGIES, INC.	Antenna Radar Cross Section Testing	12/15/2020	9/30/2021	Reimbursable	LaRC	SAA1-32449, ANNEX

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86	6 32449	L3HARRIS TECHNOLOGIES, INC.	Aerospace Research Development Testing and Evaluation S	12/15/2020	12/15/2025	Reimbursable	LaRC	SAA1-32449
86	7 32389	Innoveering, LLC	Mach Sensor Testing in the Arc-Heated Scramjet Test Facility	8/12/2020	3/1/2022	Non-Reimbursable	\$102,709 LaRC	SAA1-32389
86	8 32320	THE UNIVERSITY OF TEXAS AT SAN ANTONIO	Shock Wave Boundary Layer Interactions	11/19/2020	9/30/2021	Non-Reimbursable	\$328,711 LaRC	SAA1-32320
86	9 32298	THE VIRGINIA AIR AND SPACE CENTER AND CITY OF HAMPTON	A Joint Public Lecture Series Entitled The Sigma Series	7/30/2020	7/30/2025	Non-Reimbursable	\$105,598 LaRC	SAA1-32298
87	70 32297	The Boeing Company	Advancement of Acoustic Lining Design Methods and Tools	3/4/2021	9/30/2022	Non-Reimbursable		SAA1-23831, ANNEX 15

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8	71 32296	The Boeing Company	Flight Test of B737MAX-9	6/2/2021	9/30/2023	Non-Reimbursable	\$13,010 LaRC	SAA1-23831, Annex 14
8	72 32252	Blue Origin, LLC	Provide Forced Oscillation Testing in Transonic Dynamics T	11/4/2020	8/31/2022	Reimbursable	LaRC	SAA2-403403, Annex
8	73 32242	University of North Carolina at Chapel Hill	Mentoring for Commercializing Emerging Technologies Studies	8/10/2021	8/10/2026	Non-Reimbursable	\$9,313 LaRC	SAA1-32242
8	74 32177	BLUE ORIGIN, LLC	COLLABORATION ON SYSTEMS ENGINEERING PROCESSES FOR VERIFICATION AND VALIDATION OF LAUNCH VEHICLE REQUIREMENTS	4/23/2020	10/31/2021	Non-Reimbursable	\$175,117 LaRC	SAA1-32177
8	75 32166	VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY	Air Quality Monitoring Site	8/13/2020	8/13/2025	Non-Reimbursable	\$47,380 LaRC	IA1-32166

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8	376 32151	The Boeing Company	Shape Memory Alloy Remote Control Actuation Test, Phase 3	1/12/2021	1/12/2022	Non-Reimbursable	\$218,628 LaRC	SAA1-32151
8	32091	INTEL CORPORATION	FABRICATION OF COPPER AND DIAMOND - COMPOSITI	8/17/2021	10/31/2022	Reimbursable	LaRC	SAA1-32088-Annex 1
8	378 32088	INTEL CORPORATION	Development of high thermal conductivity material for next go	8/17/2021	8/17/2026	Reimbursable	LaRC	SAA1-32088
8	379 32044	National Institute for Aviation Research-Wichita State University (niar)	Composites NDE standards library and database administration	4/24/2020	4/24/2025	Non-Reimbursable	\$23,548 LaRC	SAA1-32044
8	32037	Hermeus Corporation	High Mach Aircraft Research and Development Collaboration	11/9/2020	11/9/2025	Non-Reimbursable	\$540,705 LaRC	SAA1-32036

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88	31 32036	Hermeus Corporation	Collaboration for Aerospace Research, Development and Testing	11/9/2020	11/9/2025	Non-Reimbursable	\$0 LaRC	SAA1-32036
88	32 31974	TEXAS A&M UNIVERSITY	Boundary Layer Turbulence (BOLT) Flight II Experiments	4/23/2021	9/30/2022	Non-Reimbursable	\$256,604 LaRC	SAA1-31974
88	33 31765	National Institute of Aerospace	Novel Concepts for Transition Delay in Hypersonic Boundary	7/17/2020	3/31/2023	Reimbursable	LaRC	SAA1-31764, Annex
88	31764	National Institute of Aerospace	RESEARCH, EDUCATIONAL OUTREACH, AND TESTING	.7/17/2020	7/17/2025	Reimbursable	LaRC	SAA1-31764
88	31663	THE SPACESHIP COMPANY	Collaboration to Commercialize High Mach Aircraft	3/20/2020	3/20/2025	Non-Reimbursable	\$0 LaRC	SAA1-31663

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	886 31490	Test Resources Management Cente	r SKYRANGE CAPABILITY DEVELOPMENT, DEMONSTRAT	5/26/2020	4/21/2022	Reimbursable	LaRC	IA1-24848, Annex 5
	887 31409	ASX Composites	Co-Cure-Ply Materials Development	11/26/2019	11/30/2022	Non-Reimbursable	\$123,983 LaRC	SAA1-31409
	888 31340	Lockheed Martin	Advanced Additive Manufacturing Technologies	12/10/2019	12/10/2021	Non-Reimbursable	\$11,917 LaRC	SAA1-31340
	889 31252	North Carolina State University	Wind Tunnel Testing of Pressure Sensitive Paint	11/12/2019	5/31/2023	Non-Reimbursable	\$92,816 LaRC	SAA1-23398, Annex 5
	890 31140	GENERAL ATOMICS AERONAUTIO	Evaluation of Acoustic Liners for Fan Noise Reduction	10/9/2019	10/9/2024	Reimbursable	LaRC	SAA1-31140

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8	91 31071	Genetoo, Inc.	Laser Surface Treatment and Analysis of Metal Alloys for Adhesion Mitigation	9/30/2019	12/31/2021	Non-Reimbursable	\$87,711 LaRC	SAA1-31071
8	92 31038	The Boeing Company	annex to AEROSPACE RESEARCH AND DEVELOPMENT	10/22/2019	12/31/2021	Reimbursable	LaRC	SAA1-21619, Annex
8	93 30948	Honda Aircraft Company LLC	Honda Aircraft Company Wind Tunnel Testing	9/5/2019	9/5/2022	Reimbursable	LaRC	SAA1-30948
8	94 30865	Purdue University	Hypersonic Boundary Layer Cone Fin and Cone Flap Studies	3/23/2020	7/19/2022	Non-Reimbursable	\$357,283 LaRC	SAA1-25183, Annex 2
8	95 30776	University of Maryland	Support of Fluid-Structure Interactions Testing, Part 2, in LaRC 20-Inch Mach 6 Tunnel	12/5/2019	1/31/2022	Non-Reimbursable	\$176,790 LaRC	SAA1-25454, Annex 3

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896	30707	MOOG, INC	Autonomous Flight Control Development for Electric VTOL Vehicles	1/18/2020	9/29/2022	Non-Reimbursable	\$124,163	LaRC	SAA1-30706
897	30706	MOOG, INC	AEROSPACE RESEARCH TECHNOLOGY AND DEVELOPMENT	1/18/2020	1/18/2025	Non-Reimbursable	\$0	LaRC	SAA1-30706
898			HIGH-FIDELITY MODEL DEVOPMENT FOR SCRAMJET COMBUSTOR FLOWPATHS	8/12/2019	5/31/2023	Non-Reimbursable	\$75,603	LaRC	SAA1-23398, Annex 4
899	30606	BNNT, LLC	DEVELOPMENT AND OPTIMIZATION OF BORON NITRIDE NANOTUBES	8/21/2019	8/21/2024	Non-Reimbursable	\$0	LaRC	SAA1-30606
900	30465	The Boeing Company	Flight Evaluation of NASA Langley's Safeguard Technology	5/4/2020	5/4/2022	Non-Reimbursable	\$46,272	LaRC	SAA1-23831, Annex 11

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9	001 30237	HRL Laboratories, LLC	Evaluation of Aerospace Coatings for Mitigation of Environm	9/30/2019	9/30/2022	Reimbursable	LaRC	SAA1-30237
9	30164	SIKORSKY AIRCRAFT CORP	Stroking Main Rotor Gearbox and Lower Fuselage Gun Mou	9/17/2019	11/30/2021	Reimbursable	LaRC	SAA1-30164
9	003 29851	Exothermics, Inc.	Thermochemical Response of UHT Hypersonic Leading-Edg	3/26/2019	9/30/2022	Reimbursable	LaRC	SAA1-29851
9	004 29737	Florida State University	Validation of a Liner Drag Measurement/Computational Tool	3/19/2019	1/1/2022	Non-Reimbursable	\$14,020 LaRC	SAA129737
9	005 29707	Calspan-University at Buffalo Research Center	FREESTREAM MEASUREMENT TESTING	3/6/2019	11/30/2022	Non-Reimbursable	\$2,256 LaRC	SAA1-29707

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90	06 29424	Williamsburg-James City County Public Schools	High School Students United With NASA to Create Hardware Program	2/6/2019	2/6/2024	Non-Reimbursable	\$0 LaRC	SAA1-29424
90	7 29215	Purdue University	Deployable Composite Sail Structure Materials Modeling Research	2/22/2019	9/30/2023	Non-Reimbursable	\$15,826 LaRC	SAA1-29213, Annex 2
90	98 29213	Purdue University	Deployable Composite Solar Sail Structural Research	2/21/2019	2/21/2024	Non-Reimbursable	\$0 LaRC	SAA1-29213
90	9 28808	The Boeing Company	The Development of a Science, Technology, Engineering and Mathematics Capable Workforce	11/21/2018	11/21/2021	Non-Reimbursable	\$540,068 LaRC	SAA1-28808
91	0 28789	Wichita State University	Acoustic and Aero Liner Research	10/1/2018	10/1/2023	Non-Reimbursable	\$0 LaRC	SAA1-28789

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9	1 28502	North Carolina State University	Deployable Composite Booms and Deployment Systems	8/27/2018	5/31/2023	Non-Reimbursable	\$52,604 LaRC	SAA1-23398, Annex 3
91	2 28174	LOCKHEED MARTIN	Revolutionary Fabrication Methods and Materials Testing of	7/17/2018	7/17/2023	Reimbursable	LaRC	SAA1-28174
91	3 27921	Tech Center LLC	Cooperative Research Activities In Manufacturing Technolog	7/13/2018	7/13/2023	Reimbursable	LaRC	SAA1-27921
9′	4 27829	Boom Supersonic	Aerospace Research and Development	5/8/2018	5/8/2023	Reimbursable	LaRC	SAA1-27829
9^	5 27785	George Mason University	Interatomic Potential Development for Molecular Dynamics Simulations	5/31/2018	5/31/2023	Non-Reimbursable	\$278,363 LaRC	SAA1-27785

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	916 27263	BLACK LABORATORIES, LLC	Materials Characterization	4/18/2018	4/18/2022	Reimbursable	LaRC	SAA1-27263
	917 26728	Hyperloop Transportation Technolog	gi Research, Development, and Testing of Aerospace Technolo	:1/30/2018	1/30/2023	Reimbursable	LaRC	26728
	918 26344	ALASKA AIRLINES	Research and Development Collaboration	9/25/2017	9/25/2022	Non-Reimbursable	\$0 LaRC	SAA1-26344
	919 25551	JOHN HOPKINS APPLIED PHYSIC	CS Multifunctional Hypersonic Materials and Coatings	5/10/2017	12/31/2021	Reimbursable	LaRC	SAA1-25551
	920 25454	University of Maryland	Hypersonic ShockWave Boundary Layer Fluid Structure Interactions Technology Development	6/1/2017	6/1/2022	Non-Reimbursable	\$0 LaRC	SAA1-25454

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	921 25384	NORFOLK STATE UNIVERSITY	ADVANCED CAPABILITIES FOR AERONAUTICS RESEARCH AND GROUND FACILITY TESTING	11/13/2017	11/13/2022	Non-Reimbursable	\$273,295 LaRC	SAA1-25384
	922 25183	Purdue University	Support of Understanding of Experimental Mach 6 Hypersonic Boundary Layers (BL)	7/19/2017	7/19/2022	Non-Reimbursable	\$0 LaRC	SAA1-25183
	923 24848	Test Resources Management Cente	er Hypersonic Test and Technology Development	4/21/2017	4/21/2022	Reimbursable	LaRC	IA1-24848
	924 24738	Gulfstream Aerospace Corporation	Aeroacoustic Research Activities	2/3/2017	2/3/2022	Non-Reimbursable	\$0 LaRC	SAA1-24738
	925 24391	Isle of Wight County Public School	High School Students United with NASA to Create Hardware (HUNCH) Program	12/2/2016	12/2/2021	Non-Reimbursable	\$0 LaRC	SAA1-24391

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	926 24387	York County School District	High School Students United with NASA to Create Hardware (HUNCH) Program	11/29/2016	11/29/2021	Non-Reimbursable	\$0 LaRC	SAA1-24387
	927 24364	North Carolina School of Science & Math	High School Students United with NASA to Create Hardware (HUNCH) Program	11/15/2016	11/15/2021	Non-Reimbursable	\$0 LaRC	SAA1-24364
	928 24362	Gloucester County Public School District	High School Students United with NASA to Create Hardware (HUNCH) Program	12/6/2016	12/6/2021	Non-Reimbursable	\$0 LaRC	SAA1-24362
	929 24257	Hampton City Schools	High School Students United with NASA to Create Hardware (HUNCH) Program	10/21/2016	10/21/2021	Non-Reimbursable	\$0 LaRC	SAA1-24257
	930 24239	New Horizons Regional Education Center	High School Students United with NASA to Create Hardware (HUNCH) Program	10/17/2016	10/17/2021	Non-Reimbursable	\$0 LaRC	SAA1-24239

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9	24186	Fayetteville State University	COLLABORATIVE AEROSPACE RESEARCH, DEVELOPMENT, AND TESTING OPPORTUNITIES	12/15/2016	12/15/2021	Non-Reimbursable	\$0 LaRC	SAA1-24186
9	32 24122	University of Washington	Technical Interchange on Applications of Data Analytics and Machine Learning in Aerospace Domains	12/5/2016	12/5/2021	Non-Reimbursable	\$0 LaRC	SAA1-24122
9	24034	The Boeing Company	Flight Deck Systems and Operations Research	1/20/2017	1/20/2022	Non-Reimbursable	\$816,127 LaRC	SAA1-24034
9	24017	Textron Aviation, Inc.	Laboratory and Flight Aeronautical Research	4/5/2017	4/5/2022	Non-Reimbursable	\$0 LaRC	SAA1-24017
9	35 23957	Newport News Public School Distric	High School Students United with NASA to Create Hardware (HUNCH) Program	10/23/2016	10/23/2021	Non-Reimbursable	\$0 LaRC	SAA1-23957

ROW NO.	PAM ID NUMBER	PARTNER NAME	TITLE/PURPOSE	SIGNATURE DATE	EXPIRATION DATE	TYPE OF AGREEMENT	COMULATIVE DOLLAR CENTER	CENTER TRACKING NUMBER (IF ANY)
Ş	936 23938	Genedge Alliance	Cooperative Research Activities in Manufacturing Technolog	10/7/2016	10/7/2021	Reimbursable	LaRC	SAA1-23938
Ç	937 23831	The Boeing Company	Aerospace Research Development	2/3/2017	2/3/2022	Non-Reimbursable	\$0 LaRC	SAA1-23831
Ç	938 23827	Tech Center LLC	Cooperative Research Activities in Manufacturing Technologies	7/5/2017	7/5/2022	Non-Reimbursable	\$0 LaRC	SAA1-23827
ξ	939 23647	Psionic, LLC	Space Technology Commercialization for Measurement and	12/16/2016	12/16/2021	Reimbursable	LaRC	SAA1-23647
Ş	940 23579	GenEdge Alliance	Cooperative Research Activities in Manufacturing Technologies	2/23/2017	2/23/2022	Non-Reimbursable	\$0 LaRC	SAA1-23579

ROW NO.	PAM ID NUMBER	PARTNER NAME	TITLE/PURPOSE	SIGNATURE DATE	EXPIRATION DATE	TYPE OF AGREEMENT	TOTAL ESTIMATED CUMULATIVE DOLLAR VALUE FOR AGREEMENT	CENTER	CENTER TRACKING NUMBER (IF ANY)
941	23461	University of Florida	Collaborative Research, Development,, and Testing	12/12/2016	12/12/2021	Non-Reimbursable	\$0	LaRC	SAA1-23461
942	23398		COLLABORATIVE AEROSPACE R ESEARCH, DEVELOPMENT, AND TESTING OPPORTUNITIES	6/20/2017	5/31/2023	Non-Reimbursable	\$0	LaRC	SAA1-23398
943	23392		Collaborative Research, Development, and Testing Opportunities	11/16/2016	11/16/2021	Non-Reimbursable	\$0	LaRC	SAA1-23392
944	23227	Materials Research and Design, Inc.	HIGH TEMPERATURE MATERIALS TECHNICAL SUPPOR	1/4/2017	8/30/2022	Reimbursable		LaRC	SAA1-23227
945	23219		PARTICIPATION IN COOPERATIVE RESEARCH AND DEVELOPMENT PROJECTS	11/4/2016	11/4/2021	Non-Reimbursable	\$70,317	LaRC	SAA1-23219

ROW NO.	PAM ID NUMBER	PARTNER NAME	TITLE/PURPOSE	SIGNATURE DATE	EXPIRATION DATE	TYPE OF AGREEMENT	COMULATIVE DOLLAR CENTER	CENTER TRACKING NUMBER (IF ANY)
ę	22749	Raytheon Corporation	Sensor Risk Reduction Tests	12/21/2016	12/21/2021	Reimbursable	LaRC	SAA1-22746, Annex
ç	22746	Raytheon Corporation	Optical Remote Sensing for Space Applications in Robotics a	:12/21/2016	12/21/2021	Reimbursable	LaRC	SAA1-22746
ę	948 22217	Infrasonix-Inc	Infrasonix Stethoscope Evaluation Over Human Subjects	11/28/2017	11/28/2022	Reimbursable	LaRC	SAA1-22217
ę	22064	Huntington Ingalls Incorporated	Manufacturing, Research and Development Activities	10/31/2016	10/31/2021	Reimbursable	LaRC	SAA1-22064
S	950 21619	The Boeing Company	AEROSPACE RESEARCH AND DEVELOPMENT	11/20/2015	12/31/2021	Reimbursable	LaRC	SAA1-21619

ROW NO.	PAM ID NUMBER	PARTNER NAME	TITLE/PURPOSE	SIGNATURE DATE	EXPIRATION DATE	TYPE OF AGREEMENT	COMULATIVE DOLLAR CENTER	CENTER TRACKING NUMBER (IF ANY)
9	951 35435	OCHSNER CLINIC FOUNDATION	Ochsner Clinic Foundation	10/27/2021	10/26/2026	Reimbursable	MSFC	SAA8-2135435
9	952 35423	KT Engineering Corporation	Thermal, CFD, and Acoustic analysis and support of the US	.10/26/2021	10/25/2022	Reimbursable	MSFC	SAA8-2031673.4
9	953 35102	United Launch Alliance	Annex to Launch Vehicle Manufacturing and Test Support	10/31/2017	10/31/2022	Reimbursable	MSFC	SAA8-1726580.10
9	954 35048	Raytheon Missile Systems	Raytheon Wind Tunnel Testing	9/8/2021	6/16/2022	Reimbursable	MSFC	SAA8-1725553.4
9	955 34839	United Launch Alliance	annex to Launch Vehicle Manufacturing and Test Support	7/7/2021	1/7/2022	Reimbursable	MSFC	SAA8-1726580.9

ROW NO.	PAM ID NUMBER	PARTNER NAME	TITLE/PURPOSE	SIGNATURE DATE	EXPIRATION DATE	TYPE OF AGREEMENT	VALUE FOR CENTER	CENTER TRACKING NUMBER (IF ANY)
		NEW MEXICO STATE UNIVERSITY	Fireball Network Station at New Mexico State University	8/11/2021	8/11/2026	Non-Reimbursable	\$1,447 MSFC	SAA8-2134821
	957 34804	Ball Aerospace & Technologies Cor	p annex to Space Environmental Effects Testing and Material (	7/21/2021	7/21/2022	Reimbursable	MSFC	SAA8-1931239.2
	958 34732	BLUE ORIGIN, LLC	Blue Origin Hot Gas Testing of Materials @ Hot Gas Test Fa	7/7/2021	7/7/2022	Reimbursable	MSFC	SAA8-1725986.31
	959 34697	United Launch Alliance	PAF and FID Vulcan Rocket Support	7/20/2021	7/20/2022	Reimbursable	MSFC	SAA8-1726580
	960 34695	Vivace Corporation	Vivace Corporation Demand Services	6/16/2021	6/16/2026	Reimbursable	MSFC	SAA8-2134695

ROW NO.	PAM ID NUMBER	PARTNER NAME	TITLE/PURPOSE	SIGNATURE DATE	EXPIRATION DATE	TYPE OF AGREEMENT	TOTAL ESTIMATED CUMULATIVE DOLLAR VALUE FOR AGREEMENT	CENTER	CENTER TRACKING NUMBER (IF ANY)
961	34690	Virgin Orbit, LLC	Virgin Orbit Newton 4 Testing (Phase II)	7/26/2021	7/26/2022	Reimbursable		MSFC	SAA8-1725209.10
962	34614	Lusher Charter High School	Lusher Charter High School / High Schools United with NASA to Create Hardware (HUNCH) Program	9/14/2021	9/13/2026	Non-Reimbursable	\$77,585	MSFC	SAA8-2134614
963	34613	East Central High School - Mississippi	East Central High School - Mississippi / High Schools United with NASA to Create Hardware (HUNCH) Program	9/8/2021	9/8/2026	Non-Reimbursable	\$77,585	MSFC	SAA8-2134613
964	34607	HUNTSVILLE CITY SCHOOLS	annex TO PRODUCE HARDWARE OR OTHER USEFUL PRODUCTS UNDER THE HUNCH (HIGH SCHOOLS UNITED WITH NASA TO CREATE HARDWARE) PROGRAM	6/16/2021	6/16/2026	Non-Reimbursable	\$77,585	MSFC	SAA8-2031925.3
965	34593	LOCKHEED MARTIN	Deep Space Mission Modeling and Analysis	8/5/2021	8/5/2023	Reimbursable		MSFC	SAA8-2134592.1

ROW NO.	PAM ID NUMBER	PARTNER NAME	TITLE/PURPOSE	SIGNATURE DATE	EXPIRATION DATE	TYPE OF AGREEMENT	TOTAL ESTIMATED CUMULATIVE DOLLAR VALUE FOR AGREEMENT	CENTER	CENTER TRACKING NUMBER (IF ANY)
966	34592	LOCKHEED MARTIN	Exchange of Technical Expertise in Support of Deep Space	E8/5/2021	8/5/2026	Reimbursable		MSFC	SAA8-2134592
967	34566	ABL Space Systems Company	ANNEX BETWEEN THE NATIONAL AERONAUTICS AND	8/23/2021	8/23/2023	Reimbursable		MSFC	SAA8-2134565.1
968	34565	ABL Space Systems Company	REIMBURSABLE SPACE ACT UMBRELLA AGREEMENT	E8/23/2021	8/23/2026	Reimbursable		MSFC	SAA8-2134565
969	34561	LOCKHEED MARTIN	Lockheed Martin Test @ HGF	7/14/2021	7/4/2022	Reimbursable		MSFC	SAA8-2134560.1
970	34560	LOCKHEED MARTIN	Exchange of Technical Expertise for commercial space tran	s 7/14/2021	7/14/2026	Reimbursable		MSFC	SAA8-2134560

ROW NO.	PAM ID NUMBER	PARTNER NAME	TITLE/PURPOSE	SIGNATURE DATE	EXPIRATION DATE	TYPE OF AGREEMENT	VALUE FOR CENTER	CENTER TRACKING NUMBER (IF ANY)
	971 34252	Innovative Rocket Technologies Inc	. IRocket Propulsion Technology Consultation Agreement	6/7/2021	6/7/2022	Reimbursable	MSFC	SAA8-2134251.1
	972 34251	Innovative Rocket Technologies Inc	. IROCKET Propulsion Technology	6/7/2021	6/7/2026	Reimbursable	MSFC	SAA8-2134251
	973 34237	THE BOEING COMPANY	NASA MSFC Materials Impact Testing for Boeing Research	:4/27/2021	4/27/2022	Reimbursable	MSFC	SAA8-2134237
	974 34231	Beau Chene High School	Beau Chene High School - Louisiana / High Schools United with NASA to Create Hardware (HUNCH) Program	3/10/2021	3/10/2026	Non-Reimbursable	\$77,585 MSFC	SAA8-2134231
	975 34190	Touchstone Research Lab	Touchstone TPS Testing @HGF	4/21/2021	4/21/2022	Reimbursable	MSFC	SAA8-2134190

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	976 34144	Iowa State University	Microwave Millimeter Wave Studies	9/28/2021	3/28/2022	Non-Reimbursable	\$19,374 MSFC	SAA8-2134143.1
	977 34143	Iowa State University	Microwave Nondestructive Evaluation (NDE) Studies	9/28/2021	9/28/2026	Non-Reimbursable	\$0 MSFC	SAA8-2134143
	978 34034	Career Academies of Decatur	Career Academies of Decatur for HUNCH Program	2/2/2021	2/2/2026	Non-Reimbursable	\$77,585 MSFC	SAA8-2134034
	979 34032	Hewitt-Trussville High School	Hewitt-Trussville High School / High Schools United with NASA to Create Hardware (HUNCH) Program	4/29/2021	4/29/2026	Non-Reimbursable	\$77,585 MSFC	SAA8-2134032
	980 33949	Brewer High School	Brewer High School for High Schools United with NASA to Create Hardware (HUNCH) Program	4/29/2021	4/29/2026	Non-Reimbursable	\$77,585 MSFC	SAA8-2133949

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98	1 33935	THE BOEING COMPANY	Boeing XSP Composite Tank	2/11/2021	2/11/2023	Reimbursable	MSFC	SAA8-2133935
98.	2 33901	General Atomics	DRACO High Temperature Component Testing	9/28/2021	9/28/2023	Reimbursable	MSFC	SAA8-2133900.1
98	3 33900	General Atomics	DRACO High Temperature Component Testing	9/28/2021	9/28/2026	Reimbursable	MSFC	SAA8-2133900
98	4 33819	Haigh-Farr, Inc	Haigh-Farr UHF Blade TPS Testing @HGF	12/23/2020	12/23/2021	Reimbursable	MSFC	SAA8-2033819
98.	5 33735	Textron Systems Corporation	Textron Systems Marine and Land Systems	12/8/2020	12/8/2022	Reimbursable	MSFC	SAA8-2133735

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98	36 33720	BK MANUFACTURING, INC	BK Manufacturing, Inc.	12/9/2020	12/9/2025	Reimbursable	MSFC	SAA8-2133720
98	37 33719	KT Engineering Corporation	annex to FASTRAC Powerpack Testing and Aerospike Noz.	212/22/2020	12/22/2021	Reimbursable	MSFC	SAA8-2031673.3
98	88 33697	Howe Industries LLC	Testing of Propulsion Components in MSFC Test Chamber	12/14/2020	12/14/2021	Reimbursable	MSFC	SAA8-2033696.1
98	33696	Howe Industries LLC	Nuclear Thermal Propulsion System Development	12/14/2020	12/14/2025	Reimbursable	MSFC	SAA8-2033696
99	00 33671	Dade County Middle School	Dade County Middle School for High Schools United with NASA to Create Hardware (HUNCH) Program	1/6/2021	1/6/2026	Non-Reimbursable	\$67,643 MSFC	SAA8-2033671

ROW NO.	PAM ID NUMBER	PARTNER NAME	TITLE/PURPOSE	SIGNATURE DATE	EXPIRATION DATE	TYPE OF AGREEMENT	IVALUE EOD	CENTER TRACKING NUMBER (IF ANY)
99	91 33670	Dade County High School	Dade County High School for High Schools United with NASA to Create Hardware (HUNCH) Program	1/6/2021	1/6/2026	Non-Reimbursable	\$67,643 MSFC	SAA8-2033670
99	92 33668	Maxwell High School of Technology	Maxwell High School of Technology for High Schools United with NASA to Create Hardware (HUNCH) Program	12/14/2020	12/14/2025	Non-Reimbursable	\$67,643 MSFC	SAA8-2033668
99	93 33667	Franklin County High School	FRANKLIN COUNTY HIGH SCHOOL FOR HIGH SCHOOLS UNITED WITH NASA TO CREATE HARDWARE (HUNCH) PROGRAM	11/5/2020	11/5/2025	Non-Reimbursable	\$67,643 MSFC	SAA8-2033667
99	94 33666	McDonald County High School	MCDONALD COUNTY HIGH SCHOOL FOR HIGH SCHOOLS UNITED WITH NASA TO CREATE HARDWARE (HUNCH) PROGRAM	12/1/2020	12/1/2025	Non-Reimbursable	\$67,643 MSFC	SAA8-2033666
99	95 33662	Meade County High School	MEADE COUNTY HIGH SCHOOL FOR HIGH SCHOOLS UNITED WITH NASA TO CREATE HARDWARE (HUNCH) PROGRAM	11/5/2020	11/5/2025	Non-Reimbursable	\$67,643 MSFC	SAA8-2033662

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996	33654	Mt. Pleasant High School	Mt. Pleasant High School - Tennessee / High Schools United with NASA to Create Hardware (HUNCH) Program.	12/7/2020	12/7/2025	Non-Reimbursable	\$67,643	MSFC	SAA8-2033654
997	33653	Dekalb County Technology Center	Dekalb County Technology Center for High Schools United with NASA to Create Hardware (HUNCH) Program	11/19/2020	11/19/2025	Non-Reimbursable	\$67,643	MSFC	SAA8-2033653
998	33652	Marshall County Technical School	Marshall County Technical School for High Schools United with NASA to Create Hardware (HUNCH) Program	11/30/2020	11/30/2025	Non-Reimbursable	\$67,643	MSFC	SAA8-2033652
999	33651	Laurel High School	Laurel High School for High Schools United with NASA to Create Hardware (HUNCH) Program	12/15/2020	12/15/2025	Non-Reimbursable	\$67,643	MSFC	SAA8-2033651
1000	33647	Earnest Pruett Center of Technology	Earnest Pruett Center of Technology/High Schools United with NASA to Create Hardware (HUNCH) Program	3/24/2021	3/24/2026	Non-Reimbursable	\$67,643	MSFC	SAA8-2033647

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1001	33646	McGavock High School	McGavock High School - Tennessee / High Schools United with NASA to Create Hardware (HUNCH) Program	3/17/2021	3/17/2026	Non-Reimbursable	\$67,643	MSFC	SAA8-2033646
1002	33645	LINCOLN COUNTY HIGH SCHOOL	Lincoln County High School - Tennessee / High Schools United with NASA to Create Hardware (HUNCH) Program	11/13/2020	11/13/2025	Non-Reimbursable	\$67,643	MSFC	SAA8-2033645
1003	33627	HUNTSVILLE CITY SCHOOLS	Huntsville City School for High Schools United with NASA to Create Hardware (HUNCH) Program - Jemison Annex	6/16/2021	6/16/2026	Non-Reimbursable	\$67,643	MSFC	SAA8-2031925.1
1004	33577	Tellus Science Museum	Fireball Network Station at Tellus Science Museum	12/7/2020	12/7/2025	Non-Reimbursable	\$1,568	MSFC	SAA8-2033577
1005	33491	Venus Aerospace Corporation	Propulsion consultation to support design of novel thrust cha	ai 3/1/2021	3/1/2023	Reimbursable		MSFC	SAA8-2033490.1

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1006	33490	Venus Aerospace Corporation	Support design, development and testing of novel cryogenic	3/1/2021	3/1/2026	Reimbursable		MSFC	SAA8-2033490
1007	33447	AST&Science, LLC	Spacecraft Component Testing	11/3/2020	11/3/2025	Reimbursable		MSFC	SAA8-2033447
1008	33445	G-Space, Inc.	Thermophysical Properties Measurements of Fluoride Glass	11/20/2020	9/30/2022	Reimbursable		MSFC	SAA8-2033444.1
1009	33444	G-Space, Inc.	THERMOPHYSICAL PROPERTIES MEASUREMENTS US	I 11/20/2020	11/20/2025	Reimbursable		MSFC	SAA8-2033444
1010	33440	LOCKHEED MARTIN	Lockheed Martin Spun Formed Dome Development for Luna	a 11/30/2020	11/30/2021	Reimbursable		MSFC	SAA8-2033440

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1011	33295	Microsoft Corporation	THE DISCOVERY, ACCESS AND USE OF LARGE SCIENCE DATASETS	8/11/2021	8/11/2026	Non-Reimbursable	\$685,153	MSFC	SAA8-2133294.1
1012	33294	Microsoft Corporation	THE DISCOVERY, ACCESS AND USE OF LARGE SCIENCE DATASETS	8/11/2021	8/11/2026	Non-Reimbursable	\$0	MSFC	SAA8-2133294
1013	33257	BLUE ORIGIN, LLC	Blue Origin BE-7 10K OX TPA	11/24/2020	11/24/2022	Reimbursable		MSFC	SAA8-1725986.29
1014	33219	BLUE ORIGIN, LLC	Blue Origin BE-7 10K LH2 TPA	11/24/2020	11/24/2022	Reimbursable		MSFC	SAA8-1725986.28
1015	33206	BLUE ORIGIN, LLC	Annex 27 to Exchange of Technical Expertise for commercia	a10/22/2020	4/22/2022	Reimbursable		MSFC	SAA8-1725986.27

ROW NO.	PAM ID NUMBER	PARTNER NAME	TITLE/PURPOSE	SIGNATURE DATE	EXPIRATION DATE	TYPE OF AGREEMENT	VALUE FOR CENTER	CENTER TRACKING NUMBER (IF ANY)
10	16 33021	RELATIVITY SPACE, INC.	Design and manufacturing review for rocket engine compone	:10/14/2020	10/14/2022	Reimbursable	MSFC	SAA8-2033020.1
10	17 33020	RELATIVITY SPACE, INC.	Rocket Engine Development and Test	10/14/2020	10/14/2025	Reimbursable	MSFC	SAA8-2033020
10	18 32872	United Launch Alliance	ULA Booster Instrumentation	7/9/2020	12/31/2021	Reimbursable	MSFC	SAA8-1726580.6
10	19 32805	UNIVERSITY OF ALABAMA	SAA8-2132804 Annex 1 In-situ resource utilization - lunar	2/1/2021	2/1/2023	Non-Reimbursable	\$43,752 MSFC	SAA8-2132804.1
10.	20 32804	UNIVERSITY OF ALABAMA	Space Exploration Technology Development	2/1/2021	2/1/2026	Non-Reimbursable	\$0 MSFC	SAA8-2132804

ROW NO.	PAM ID NUMBER	PARTNER NAME	TITLE/PURPOSE	SIGNATURE DATE	EXPIRATION DATE	TYPE OF AGREEMENT	VALUE FOR CENTER	CENTER TRACKING NUMBER (IF ANY)
102′	32789	X-Bow Launch Systems Inc.	ANALYSIS FOR ADDITIVELY MANUFACTURED SOLID ROCKET MOTOR PROPELLANT	1/19/2021	1/19/2022	Non-Reimbursable	\$36,646 MSFC	SAA8-2032788.1
1022	2 32788	X-Bow Launch Systems Inc.	COLLABORATION ON ENGINEERING TECHNOLOGIES FOR EARTH, LUNAR AND SPACE APPLICATIONS	1/19/2021	1/19/2026	Non-Reimbursable	\$0 MSFC	SAA8-2032788
1023	3 32718	Methuselah Foundation	The Centennial Challenges Lunar Nutrition Challenge	8/28/2020	8/28/2022	Non-Reimbursable	\$931,482 MSFC	SAA8-2032718
1024	1 32639	Lockheed Martin Space	Lockheed Martin Test @ HGF	6/24/2020	6/24/2022	Reimbursable	MSFC	SAA8-2032638.1
1025	5 32638	Lockheed Martin Space	Exchange of Technical Expertise for commercial space trans	6/24/2020	6/24/2025	Reimbursable	MSFC	SAA8-2032638

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1026		MILLENNIUM SPACE SYSTEMS, INC	Evaluate Orbital Trajectory of Flight Experiment	11/19/2020	11/19/2022	Non-Reimbursable	\$31,414	MSFC	SAA8-2032636
1027	32583	RUAG Space USA, Inc	RUAG Bi-Sector Modal	10/29/2020	10/29/2021	Reimbursable		MSFC	SAA8-1829459.3
1028			Demonstrating the use of artificial intelligence computer software for space flight systems	9/28/2020	9/28/2022	Non-Reimbursable	\$307,089	MSFC	SAA8-2032551.1
1029	32551		Artificial intelligence computer software for space flight systems	9/28/2020	9/28/2025	Non-Reimbursable	\$0	MSFC	SAA8-2032551
1030	32353	Cullman Area Technology Academy	TO PRODUCE HARDWARE OR OTHER USEFUL PRODUCTS UNDER THE HIGH SCHOOLS UNITED WITH NASA TO CREATE HARDWARE (HUNCH) PROGRAM	9/23/2020	9/23/2025	Non-Reimbursable	\$72,338	MSFC	SAA8-2032353

ROW NO.	PAM ID NUMBER	PARTNER NAME	TITLE/PURPOSE	SIGNATURE DATE	EXPIRATION DATE	TYPE OF AGREEMENT	COMULATIVE DOLLAR CENTER	CENTER TRACKING NUMBER (IF ANY)
1031	32182	BLUE ORIGIN, LLC	Blue Origin TCA v2.0	7/7/2020	7/7/2022	Reimbursable	MSFC	SAA8-1725986.25
1032	2 32156	Imperx, Inc.	Rugged Space Rated High Definition – Serial Data Interface (HD-SDI) Camera	5/11/2020	5/11/2022	Non-Reimbursable	\$239,458 MSFC	SAA8-2032156
1033	3 32095	Blue Origin Florida, LLC	Production Implementation	6/11/2020	6/11/2022	Reimbursable	MSFC	SAA8-2032094.1
1034	32094	Blue Origin Florida, LLC	Production Implementation	6/11/2020	6/11/2025	Reimbursable	MSFC	SAA8-2032094
1035	5 32084	ATK Launch Systems Inc.	ATK Hot Gas Testing	6/4/2020	6/4/2022	Reimbursable	MSFC	SAA8-1931535.2

ROW NO.	PAM ID NUMBER	PARTNER NAME	TITLE/PURPOSE	SIGNATURE DATE	EXPIRATION DATE	TYPE OF AGREEMENT	CUMULATIVE DOLLAR CENTER	CENTER TRACKING NUMBER (IF ANY)
10	36 32069	KT Engineering Corporation	Annex to FASTRAC Powerpack Testing and Aerospike Noz	3/24/2020	3/24/2022	Reimbursable	MSFC	SAA8-2031673.2
10	37 31926	HUNTSVILLE CITY SCHOOLS	Huntsville City School for High Schools United with NASA to Create Hardware (HUNCH) Program - Grissom Annex	6/16/2021	6/16/2026	Non-Reimbursable	\$72,338 MSFC	SAA8-2031925.2
10	38 31925	HUNTSVILLE CITY SCHOOLS	TO PRODUCE HARDWARE OR OTHER USEFUL PRODUCTS UNDER THE HUNCH (HIGH SCHOOLS UNITED WITH NASA TO CREATE HARDWARE) PROGRAM	6/16/2021	6/16/2026	Non-Reimbursable	\$0 MSFC	SAA8-2031925
10	39 31862	ASTROBOTIC TECHNOLOGY, INC	Provide NASA expertise in lunar cargo transportation and lar	6/4/2020	6/4/2022	Reimbursable	MSFC	SAA8-1930516.2
10	40 31673	KT Engineering Corporation	FASTRAC Powerpack Testing and Aerospike Nozzle Analys	2/5/2020	2/5/2023	Reimbursable	MSFC	SAA8-2031673

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104	1 31655	Oceangate	Oceangate Automated Fiber Placement Development	2/4/2020	2/4/2022	Reimbursable	MSFC	SAA8-2031655
1042	2 31654	University of Louisiana at Lafayette	SAA8-2031653.1 Thermophysical Properties Measurements	10/19/2020	10/19/2021	Reimbursable	MSFC	SAA8-2031653.1
104	3 31653	University of Louisiana at Lafayette	SAA8-2031653 Thermophysical Properties Testing in the Ele	10/19/2020	10/19/2025	Reimbursable	MSFC	SAA8-2031653
1044	1 31649	BLUE ORIGIN, LLC	Extreme Environment Testing and Evaluation of Material Pro	12/11/2019	12/11/2022	Reimbursable	MSFC	SAA8-1931648.1
104	5 31648	BLUE ORIGIN, LLC	Extreme Environment Testing and Evaluation of Material Pro	12/11/2019	12/11/2024	Reimbursable	MSFC	SAA8-1931648

ROW NO.	PAM ID NUMBER	PARTNER NAME	TITLE/PURPOSE	SIGNATURE DATE	EXPIRATION DATE	TYPE OF AGREEMENT	COMULATIVE DOLLAR CENTER	CENTER TRACKING NUMBER (IF ANY)
10	046 31571	INTUITIVE MACHINES, LLC	Development of Lunar Lander Systems Technologies	3/19/2020	3/19/2025	Reimbursable	MSFC	SAA8-2031571
10	047 31535	ATK Launch Systems Inc.	Exchange of Technical Expertise for commercial space trans	12/9/2019	12/9/2024	Reimbursable	MSFC	SAA8-1931535
1	048 31492	BLUE ORIGIN, LLC	Valve testing for development of the Blue Origin engines	7/23/2020	7/23/2022	Reimbursable	MSFC	SAA8-1725986.19
1	049 31336	Florida Institute of Technology	Vision-Based Navigation for Formation Flight onboard ISS	1/16/2020	1/16/2023	Non-Reimbursable	\$170,172 MSFC	SAA8-1931336
11	050 31299	Ursa Major Technologies	Support of ROCETS software	10/30/2019	10/30/2021	Reimbursable	MSFC	SAA8-1931298.1

ROW NO.	PAM ID NUMBER	PARTNER NAME	TITLE/PURPOSE	SIGNATURE DATE	EXPIRATION DATE	TYPE OF AGREEMENT	TOTAL ESTIMATED CUMULATIVE DOLLAR VALUE FOR AGREEMENT	CENTER	CENTER TRACKING NUMBER (IF ANY)
1051	31298	Ursa Major Technologies	Rocket Engine Development Support	10/30/2019	10/30/2024	Reimbursable		MSFC	SAA8-1931298
1052	31239	Ball Aerospace & Technologies Corp	Space Environmental Effects Testing and Material Characte	r 1/27/2020	1/27/2023	Reimbursable		MSFC	SAA8-1931239
1053	31222	BLUE ORIGIN, LLC	annex to Exchange of Technical Expertise for commercial sp	11/20/2019	11/20/2021	Reimbursable		MSFC	SAA8-1725986.18
1054	31171	BLUE ORIGIN, LLC	annex to Exchange of Technical Expertise for commercial sp	9/27/2019	8/30/2022	Reimbursable		MSFC	SAA8-1725986.17
1055	31130	SPACE SYSTEMS LORAL, LLC	Room-Temperature-Vulcanized (RTV) Adhesive Coating Ma	110/21/2019	12/31/2021	Reimbursable		MSFC	SAA8-1931129.1

ROW NO.	PAM ID NUMBER	PARTNER NAME	TITLE/PURPOSE	SIGNATURE DATE	EXPIRATION DATE	TYPE OF AGREEMENT	VALUE FOR CENTER	CENTER TRACKING NUMBER (IF ANY)
105	6 31129	SPACE SYSTEMS LORAL, LLC	Space Environmental Effects Testing and Characterization o	10/21/2019	10/21/2024	Reimbursable	MSFC	SAA8-1931129
105	7 31098	U.S SPACE AND ROCKET CENTER	USSRC OPERATE AS MARSHALL SPACE FLIGHT CENTER OFFICIAL VISITOR CENTER	1/26/2021	1/26/2026	Non-Reimbursable	\$117,037 MSFC	SAA8-2031097.1
105	8 31097	U.S SPACE AND ROCKET CENTER	ALABAMA SPACE SCIENCE EXHIBIT COMMISSION	1/26/2021	1/26/2026	Non-Reimbursable	\$0 MSFC	SAA8-2031097
105	9 30996	PaR Systems LLC	PaR Systems LLC	1/1/2020	12/31/2024	Reimbursable	MSFC	SAA8-1930996
106	0 30899	RHA Materials, LLC	NEW ESL Measurements of Thermophysical Properties of N	11/30/2020	11/30/2021	Reimbursable	MSFC	SAA8-1930898.1

ROW NO.	PAM ID NUMBER	PARTNER NAME	TITLE/PURPOSE	SIGNATURE DATE	EXPIRATION DATE	TYPE OF AGREEMENT	VALUE FOR CENTER	CENTER TRACKING NUMBER (IF ANY)
106	1 30898	RHA Materials, LLC	Non-contact measurements of thermophysical properties of I	11/30/2020	11/30/2025	Reimbursable	MSFC	SAA8-1930898
1062	2 30814	FIRST RF Corporation	High Speed Particle Material Impact Testing	9/25/2019	9/25/2022	Reimbursable	MSFC	SAA8-1930814
1063	3 30516	ASTROBOTIC TECHNOLOGY, INC	Engineering Analysis and development for Commercial Luna	1/27/2020	1/27/2025	Reimbursable	MSFC	SAA8-1930516
1064	4 30492	The Boeing Company	Annex to Aerospace Hardware Testing, Evaluation, and Rela	9/13/2019	3/22/2022	Reimbursable	MSFC	SAA8-1724760.3
1065	5 30258	Amazon Web Services, Inc.	THE DISCOVERY, ACCESS AND USE OF LARGE SCIENCE DATASETS	1/6/2020	1/6/2022	Non-Reimbursable	\$675,455 MSFC	SAA8-1929988.1

ROW NO.	PAM ID NUMBER	PARTNER NAME	TITLE/PURPOSE	SIGNATURE DATE	EXPIRATION DATE	TYPE OF AGREEMENT	VALUE FOR CENTER	CENTER TRACKING NUMBER (IF ANY)
10	66 30233	BLUE ORIGIN, LLC	Blue Origin On Demand Services	7/9/2019	7/9/2022	Reimbursable	MSFC	SAA8-1830232.1
10	67 30232	BLUE ORIGIN, LLC	DEMAND SERVICES AND GENERAL SUPPORT TO TEST	7/9/2019	7/9/2024	Reimbursable	MSFC	SAA8-1830232
10	68 30143	Cellco Partnership d/b/a Verizon Wi	ireFOR OPERATION OF TELECOMMUNICATIONS EQUIPME	11/26/2019	11/26/2024	Reimbursable	MSFC	SAA8-1930143
10	69 30136	Interstellar Technologies Corporation	on Propulsion Engineering Analysis, Consultation, Feasibility Str	9/18/2019	9/18/2024	Reimbursable	MSFC	SAA8-1930136
10	70 30098	NEW CINGULAR WIRELESS PCS	, I Placement of Telecommunications antenna on building 4476	12/18/2019	12/18/2024	Reimbursable	MSFC	SAA8-1930098

ROW NO.	PAM ID NUMBER	PARTNER NAME	TITLE/PURPOSE	SIGNATURE DATE	EXPIRATION DATE	TYPE OF AGREEMENT	TOTAL ESTIMATED CUMULATIVE DOLLAR VALUE FOR AGREEMENT	CENTER	CENTER TRACKING NUMBER (IF ANY)
1071	30023	I Alabama Awiyi Uniyersiiy	Alabama A&M Annex 2 for Inert propellant mechanical property support	5/28/2019	7/19/2022	Non-Reimbursable	\$500	MSFC	SAA8-1726018.2
1072	30011		THE DISCOVERY, ACCESS AND USE OF LARGE SCIENCE DATASETS	10/21/2019	10/21/2024	Non-Reimbursable	\$0	MSFC	SAA8-1930011
1073	29988		THE DISCOVERY, ACCESS AND USE OF LARGE SCIENCE DATASETS	1/6/2020	1/6/2025	Non-Reimbursable	\$0	MSFC	SAA8-1929988
1074	29985		SPACE EXPLORATION TECHNOLOGY DEVELOPMENT IN MOTION MAGNIFICATION TECHNIQUES	5/28/2019	5/27/2022	Non-Reimbursable	\$67,372	MSFC	SAA8-1929985
1075	29718	LAWRENCE LIVERMORE NATIONA	ANNEX 3 under SAA8-1521657 for HIGH RESOLUTION FO	0 6/10/2019	4/14/2022	Reimbursable		MSFC	SAA8-1521657.3

ROW NO.	PAM ID NUMBER	PARTNER NAME	TITLE/PURPOSE	SIGNATURE DATE	EXPIRATION DATE	TYPE OF AGREEMENT	VALUE FOR CENTER	CENTER TRACKING NUMBER (IF ANY)
1	076 29535	United Launch Alliance	ULA Integrated Fluid System Test (IFST)	6/6/2019	6/6/2022	Reimbursable	MSFC	SAA8-1726580.5
1	077 29459	RUAG Space USA, Inc	Ruag Engineering Services	1/24/2019	1/24/2024	Reimbursable	MSFC	SAA8-1829459
1	078 29279	Manned Space Flight Education Foundation Inc.	The Centennial Challenges Space Robotics Challenge	3/5/2019	3/5/2022	Non-Reimbursable	\$451,413 MSFC	SAA8-1829279
1	079 28565	BLUE ORIGIN, LLC	annex to Exchange of Technical Expertise for commercial sp	10/29/2018	8/30/2022	Reimbursable	MSFC	SAA8-1725986.10
1	080 28500	OBERLIN COLLEGE	Fireball Network Station at Oberlin College	8/7/2018	8/7/2023	Non-Reimbursable	\$2,268 MSFC	SAA8-1828500

ROW NO.	PAM ID NUMBER	PARTNER NAME	TITLE/PURPOSE	SIGNATURE DATE	EXPIRATION DATE	TYPE OF AGREEMENT	TOTAL ESTIMATED CUMULATIVE DOLLAR VALUE FOR AGREEMENT	CENTER TRACKING NUMBER (IF ANY)
1081	1 28435	Spirit Aero Systems	Rivet replacement with friction stir welds	4/25/2019	4/25/2022	Reimbursable	MSFC	SAA8-1828434.1
1082	2 28434	Spirit Aero Systems	Collaboration in Aeronautical Vehicle Manufacturing	4/25/2019	4/25/2024	Reimbursable	MSFC	SAA8-1828434
1083	3 28276	St. Bernard Sheriffs Department	St Bernard Sheriffs Department	7/12/2018	7/12/2023	Non-Reimbursable	\$2,932 MSFC	SAA8-1828276
1084	1 28013	CITY OF NEW ORLEANS, LA	City of New Orleans, LA Temporary Emergency Shelter for City Employees at MAF	3/28/2019	3/28/2024	Non-Reimbursable	\$137,705 MSFC	SAA8-1828013
1085	5 27934	UNIVERSITY OF PITTSBURGH	Fireball Network Station at Allegheny Observatory	10/4/2018	10/4/2023	Non-Reimbursable	\$1,701 MSFC	SAA8-1827934

ROW NO.	PAM ID NUMBER	PARTNER NAME	TITLE/PURPOSE	SIGNATURE DATE	EXPIRATION DATE	TYPE OF AGREEMENT	COMULATIVE DOLLAR CENTER	CENTER TRACKING NUMBER (IF ANY)
108	36 27852	University of North Carolina at Gree	en Particle Impact Testing of Novel Nanocomposite Space Shie	11/13/2019	11/13/2022	Reimbursable	MSFC	SAA8-1927851.1
108	37 27851	University of North Carolina at Gree	en ENGINEERING COLLABORATION	11/13/2019	11/13/2022	Reimbursable	MSFC	SAA8-1927851
108	88 27801	Hands-On Science Center	Fireball Network Station	5/31/2018	5/31/2023	Non-Reimbursable	\$1,701 MSFC	SAA8-1827801
108	9 27799	HIRAM COLLEGE	Fireball Network Station at Hiram College	5/25/2018	5/25/2023	Non-Reimbursable	\$1,701 MSFC	SAA8-1827799
109	00 27793	AEROJET ROCKETDYNE, INC	Engine System Material in Collaboration with the AR-22 Project	5/23/2018	5/23/2023	Non-Reimbursable	\$75,162 MSFC	SAA8-1827793

ROW NO.	PAM ID NUMBER	PARTNER NAME	TITLE/PURPOSE	SIGNATURE DATE	EXPIRATION DATE	TYPE OF AGREEMENT	VALUE FOR CENTER	CENTER TRACKING NUMBER (IF ANY)
109	1 27702	LOCKHEED MARTIN	WIND TUNNEL TESTING	5/22/2018	5/22/2023	Reimbursable	MSFC	SAA8-1827702
109	2 27659	Laboratory Testing Inc.	Testing and Evaluation of Material Properties in Extreme Env	10/29/2018	10/29/2021	Reimbursable	MSFC	SAA8-1827658.1
109	3 27658	Laboratory Testing Inc.	Testing and Evaluation of Material Properties in Extreme Env	10/29/2018	10/29/2021	Reimbursable	MSFC	SAA8-1827658
109	4 27541	SIERRA NEVADA CORP	Design and manufacturing review for rocket engine component	6/11/2020	6/11/2022	Reimbursable	MSFC	SAA8-2027540.1
109	5 27540	SIERRA NEVADA CORPORATION	Rocket Engine Development and Test	6/11/2020	6/11/2025	Reimbursable	MSFC	SAA8-2027540

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1096	27478	Northeast Arkansas Career and Technical Center	Northeast Arkansas Career and Technical Center / High Schools United with NASA to Create Hardware (HUNCH) Program.	2/27/2018	2/27/2023	Non-Reimbursable	\$70,471	MSFC	SAA8-1827478
1097	27244	United Launch Alliance	ULA Vulcan Upper Stage Test	2/21/2018	12/31/2021	Reimbursable		MSFC	SAA8-1726580.3
1098	27220	Lawrence Livermore National Securi	t Annex 2 under SAA8-1521657 for High Resolution Focusing	3/21/2018	4/14/2022	Reimbursable		MSFC	SAA8-1521657.2
1099	27194	Cimarron Composites	Cimarron Composites for Developing Advanced Technology	3/14/2018	3/14/2023	Reimbursable		MSFC	SAA8-1827194
1100	26940	LOCKHEED MARTIN	Lockheed Martin Corporation Commercial	2/1/2018	9/30/2022	Reimbursable		MSFC	SAA8-1826940

ROW NO.	PAM ID NUMBER	PARTNER NAME	TITLE/PURPOSE	SIGNATURE DATE	EXPIRATION DATE	TYPE OF AGREEMENT	COMULATIVE DOLLAR CENTER	CENTER TRACKING NUMBER (IF ANY)
110	26915	UNITED LAUNCH ALLIANCE	Aeroscience analysis of Vulcan vehicle operations	1/4/2018	1/4/2023	Reimbursable	MSFC	SAA8-1726915
1102	2 26805	DECATUR CITY SCHOOLS	Wide-field Meteor Network Station at Ben Davis Magnet Elementary School	1/19/2018	1/19/2023	Non-Reimbursable	\$11,295 MSFC	SAA8-1726805
1103	26656	AUBURN UNIVERSITY	SPACE EXPLORATION TECHNOLOGY DEVELOPMENT	11/8/2017	11/8/2022	Non-Reimbursable	\$0 MSFC	SAA8-1726656
1104	26604	Garland Independent School Distric	Annex 1 to High Schools United with NASA to Create Hardware (HUNCH) Collaboration - Garland Independent School District	11/27/2017	11/27/2022	Non-Reimbursable	\$64,786 MSFC	SAA8-1726603.1
1108	5 26603	Garland Independent School Distric	High Schools United with NASA to Create Hardware t (HUNCH) Collaboration - Garland Independent School District	11/27/2017	11/27/2022	Non-Reimbursable	\$0 MSFC	SAA8-1726603

ROW NO.	PAM ID NUMBER	PARTNER NAME	TITLE/PURPOSE	SIGNATURE DATE	EXPIRATION DATE	TYPE OF AGREEMENT	TOTAL ESTIMATED CUMULATIVE DOLLAR VALUE FOR AGREEMENT	CENTER	CENTER TRACKING NUMBER (IF ANY)
1106	26580	United Launch Alliance	Launch Vehicle Manufacturing and Test Support	10/31/2017	10/31/2022	Reimbursable		MSFC	SAA8-1726580
1107	26149	Morgan County Schools	annex to High Schools United with NASA to Create Hardware (HUNCH) Collaboration - Morgan County Schools	8/9/2017	8/9/2022	Non-Reimbursable	\$61,065	MSFC	SAA8-1726148.1
1108	26148		High Schools United with NASA to Create Hardware (HUNCH) Collaboration - Morgan County Schools	8/9/2017	8/9/2022	Non-Reimbursable	\$0	MSFC	SAA8-1726148
1109	26082	Orbital Sciences Corporation, a wholl	Cryogenically - Fueled Upper Stage Technologies	3/2/2018	3/2/2023	Reimbursable		MSFC	SAA8-1726082
1110	26057		Mt. Pleasant High School - Tennessee / High Schools United with NASA to Create Hardware (HUNCH) Program.	7/25/2017	7/25/2022	Non-Reimbursable	\$61,065	MSFC	SAA8-1726057

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1111	26018	Alabama A&M University	Collaborative Agreement for Synergistic Technologies with Alabama A&M University	7/19/2017	7/19/2022	Non-Reimbursable	\$0 MSFC	SAA8-1726018
1112	2 25986	BLUE ORIGIN, LLC	Exchange of Technical Expertise for commercial space trans	8/30/2017	8/30/2022	Reimbursable	MSFC	SAA8-1725986
1113	3 25911	AEROJET ROCKETDYNE, INC	Annex 1 under SAA8-1725910 for Integration Support	10/3/2017	12/31/2021	Reimbursable	MSFC	SAA8-1725910.1
1114	25910	AEROJET ROCKETDYNE, INC	Space Systems Technology Development and Demonstratio	9/29/2017	9/29/2022	Reimbursable	MSFC	SAA8-1725910
1115	25569	Orbital Telemetry, Inc	Telemetry Licensed Test and Modification Activities	7/31/2017	7/31/2022	Reimbursable	MSFC	SAA8-1725569

ROW NO.	PAM ID NUMBER	PARTNER NAME	TITLE/PURPOSE	SIGNATURE DATE	EXPIRATION DATE	TYPE OF AGREEMENT	VALUE FOR CENTER	CENTER TRACKING NUMBER (IF ANY)
1116	6 25553	Raytheon Missile Systems	Raytheon Wind Tunnel Testing	6/16/2017	6/16/2022	Reimbursable	MSFC	SAA8-1725553
1117	7 25438	Raytheon Missile Systems	Engineering Collaboration	6/28/2017	6/28/2022	Reimbursable	MSFC	SAA8-1725438
1118	3 25325	United Technologies Corp	NASA MSFC requests Loan of Flight Qual Unit - CO2 Compressor and Controller	3/1/2018	3/1/2023	Non-Reimbursable	\$125 MSFC	SAA8-1725325
1119	9 25209	Virgin Orbit, LLC	Exchange of Technical Expertise for commercial space trans	6/9/2017	6/9/2022	Reimbursable	MSFC	SAA8-1725209
1120	0 25202	Dodge County School	Dodge County School - Georgia / High Schools United with NASA to Create Hardware (HUNCH) Program	4/11/2017	4/11/2022	Non-Reimbursable	\$61,065 MSFC	SAA8-1725202

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1121	25200	Jonesboro High School	Jonesboro High School - Arkansas / High Schools United with NASA to Create Hardware (HUNCH) Program	4/11/2017	4/11/2022	Non-Reimbursable	\$50,610	MSFC	SAA8-1725200
1122	25199	Charles Henderson High School	Charles Henderson High School Troy, Alabama / High Schools United with NASA to Create Hardware (HUNCH) Program	4/24/2017	4/24/2022	Non-Reimbursable	\$61,065	MSFC	SAA8-1725199
1123	25198	Alan Thornton Career Technical Center	Alan Thornton Career Technical Center Alabama / High Schools United with NASA to Create Hardware (HUNCH) Program	3/24/2017	3/24/2022	Non-Reimbursable	\$61,065	MSFC	SAA8-1725198
1124	25152	University of Central Florida	Fireball Network Station at UCF	7/31/2017	7/31/2022	Non-Reimbursable	\$2,555	MSFC	SAA8-1725152
1125	25118	Walker County School District by and through the Walker County Board of Education	Fireball Network Station at Smith Planetarium	4/28/2017	4/28/2022	Non-Reimbursable	\$1,420	MSFC	SAA8-1725118

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1126	25117	Association of Universities for Research in Astronomy	Fireball Network Station at KPNO	3/30/2017	3/30/2022	Non-Reimbursable	\$2,045	MSFC	SAA8-1725117
1127	25108	Oak Ridge Board of Education	Oak Ridge Board of Education for Robertsville Middle School - NASA-UNIQUE SCIENCE, TECHNOLOGY, ENGINEERING, AND MATHEMATICS (STEM) ENGAGEMENT ACTIVITIES FOR STUDENTS	7/20/2017	7/20/2022	Non-Reimbursable	\$44,516	MSFC	SAA8-1725108
1128	25059	Embry-Riddle Aeronautical University	Fireball Network Station at ERAU	7/31/2017	7/31/2022	Non-Reimbursable	\$2,420	MSFC	SAA8-1725059
1129	24979	Magnet Cove High School	Magnet Cove High School Arkansas / High Schools United with NASA to Create Hardware (HUNCH) Program	5/1/2017	5/1/2022	Non-Reimbursable	\$61,065	MSFC	SAA8-1724979
1130	24760	The Boeing Company	Aerospace Hardware Testing, Evaluation, and Related Engi	n 3/22/2017	3/22/2022	Reimbursable		MSFC	SAA8-1724760

ROW NO.	PAM ID NUMBER	PARTNER NAME TITLE/F	PURPOSE	SICINIALLIRE DALE	EXPIRATION DATE	TYPE OF AGREEMENT	VALUE FOR CENTER	CENTER TRACKING NUMBER (IF ANY)
113	1 24581	Blue Origin, LLC Blue Or	rigin, LLC Use of the National Center for Advanced Ma	1/13/2017	9/30/2021	Reimbursable	MSFC	SAA8-1724581
113:	2 24271	LAWRENCE LIVERMORE NATIONA Annex 1	1 under SAA8-1724270 for Development of High Reso	7/25/2017	12/31/2021	Reimbursable	MSFC	SAA8-1724270.1
113:	3 24270	Lawrence Livermore National Securit High Re	esolution X-Ray Optics Support	7/25/2017	7/25/2022	Reimbursable	MSFC	SAA8-1724270
113-	4 23999	Florida Turbine Technologies, Inc. Propuls	sion System Elements Development and Analysis	10/20/2016	10/20/2021	Reimbursable	MSFC	SAA8-1623999
113	5 23799	Arizona Board of Regents, On Behalf of University of Arizona	Network Station at MMTO	10/27/2016	10/27/2021	Non-Reimbursable	\$2,045 MSFC	SAA8-1623799

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1136	23798	Arizona Board of Regents on behalf of The University of Arizona	Fireball Network Station at MLO	10/27/2016	10/27/2021	Non-Reimbursable	\$2,045	MSFC	SAA8-1623798
1137	23444	Auburn University	COLLABORATIVE AGREEMENT FOR SYNERGISTIC TECHNOLOGIES	10/21/2016	10/21/2021	Non-Reimbursable	\$0	MSFC	SAA8-1623444
1138	22752	Marshall Child Development Center Inc.	Marshall Child Development Center	7/14/2016	7/13/2022	Non-Reimbursable	\$819,115	MSFC	SAA8-1622752
1139	22487	Blade Dynamics, LLP	Blade Dynamics, LLP Occupancy and Demand Services	8/31/2016	9/30/2022	Reimbursable		MSFC	SAA8-1622487
1140	21658	Lawrence Livermore National Securi	HIGH RESOLUTION FOCUSING OPTICS FOR ADVANCE	Ε 4/14/2016	4/14/2022	Reimbursable		MSFC	SAA8-1521657.1

ROW NO.	PAM ID NUMBER	PARTNER NAME	TITLE/PURPOSE	SIGNATURE DATE	EXPIRATION DATE	TYPE OF AGREEMENT	VALUE FOR CENTER	CENTER TRACKING NUMBER (IF ANY)
1141	21657	Lawrence Livermore National Securi	tHIGH RESOLUTION FOCUSING OPTICS FOR ADVANCED	4/14/2016	4/14/2022	Reimbursable	MSFC	SAA8-1521657
1142	2 21591	Limestone County Schools	Limestone County Career Technical Center annex 1 - Limestone County Schools / High Schools United with NASA to Create Hardware (HUNCH) Program	2/3/2017	2/3/2022	Non-Reimbursable	\$27,777 MSFC	SAA8-1521590.1
1143	3 21590	Limestone County Schools	Limestone County Schools / High Schools United with NASA to Create Hardware (HUNCH) Program umbrella	2/3/2017	2/3/2022	Non-Reimbursable	\$0 MSFC	SAA8-1521590
1144	21380	METHUSELAH FOUNDATION	Centennial Challenges for The Tissue Engineering Challenge	2/17/2016	9/30/2021	Non-Reimbursable	\$756,555 MSFC	SAA8-1521380
1145	5 21246	Lockheed Martin Corporation	Lockheed Martin Corporation Annex 4	10/1/2015	9/30/2021	Reimbursable	MSFC	SAA8-1620107.4

ROW NO.	PAM ID NUMBER	PARTNER NAME	TITLE/PURPOSE	SIGNATURE DATE	EXPIRATION DATE	TYPE OF AGREEMENT	VALUE FOR CENTER	CENTER TRACKING NUMBER (IF ANY)
114	6 21057	Lockheed Martin Corporation	annex to Lockheed Martin Corporation Orion Project	10/1/2015	9/30/2021	Reimbursable	MSFC	SAA8-1620107.1
114	7 20906	Lockheed Martin Corporation	Lockheed Martin Corporation Annex 3 for support services	10/1/2015	9/30/2021	Reimbursable	MSFC	SAA8-1620107.3
114	8 20901	Lockheed Martin Corporation	Lockheed Martin Corporation Annex 2 for support services C	10/1/2015	9/30/2021	Reimbursable	MSFC	SAA8-1620107.2
114	9 20107	Lockheed Martin Corporation	Lockheed Martin Corporation Orion Project	10/1/2015	9/30/2021	Reimbursable	MSFC	SAA8-1620107
115	0 19465	Ochsner Clinic Foundation	Ochsner Clinic Foundation providing on-site medical services	:11/1/2016	11/1/2021	Reimbursable	MSFC	SAA8-1619465

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1151	1 4165	Department of Economic Developr	me Cooperative Endeavor Agreement University of New Orleans	12/18/2007	12/18/2037	Non-Reimbursable	MSFC	SAA8-074165
1152	2 34292	LOUISIANA TECHNOLOGY TRAN	NS Louisiana Transfer Technology Office for Occupancy of SSC	5/2/2021	5/2/2026	Reimbursable	SSC	SSAA-1051-0089
1153	3 34280	AEROJET ROCKETDYNE, INC	Reimbursable Space Act Agreement between The National	9/29/2021	9/29/2026	Reimbursable	SSC	SSAA-1053-0182
1154	4 34213	Firehawk Aerospace, Inc.	Annex One Firehawk Propulsion Test Support Services	3/25/2021	3/25/2022	Reimbursable	SSC	SSAA-1053-0186
1155	5 34212	Firehawk Aerospace, Inc.	Reimbursable Umbrella Agreement Firehawk Aerospace, Inc	3/25/2021	3/25/2023	Reimbursable	SSC	SSAA-1053-0185

ROW NO.	PAM ID NUMBER	PARTNER NAME	TITLE/PURPOSE	SIGNATURE DATE	EXPIRATION DATE	TYPE OF AGREEMENT	VALUE FOR CENTER	CENTER TRACKING NUMBER (IF ANY)
11	56 33910	Launcher Space	Annex Two for Propulsion Test Support to Launcher Space	1/27/2021	1/27/2023	Reimbursable	SSC	SSAA-1053-0181
11	57 33761	Virgin Orbit	Annex Two to Reimbursable Umbrella Space Act Agreemen	11/23/2020	11/23/2022	Reimbursable	SSC	SSAA-1053-0180
11	58 33619	BLUE ORIGIN, LLC	Annex Six to Blue Origin Umbrella, LOX Duct Flow Testing	12/8/2020	12/8/2022	Reimbursable	SSC	SSAA-1053-0179
11	59 32234	INFINITY SCIENCE CENTER, INC	Annex Three to Non-Reimbursable Space Act Umbrella Agreement Infinity Science Center, Inc. for Framework on a Regional Partnership	7/7/2020	7/7/2025	Non-Reimbursable	\$37,450 SSC	SSAA-1053-0173
11	60 32233	INFINITY SCIENCE CENTER, INC	Annex Two to Non-Reimbursable Space Act Umbrella Agreement Infinity Science Center, Inc. for Framework on a Regional Partnership	7/7/2020	7/7/2025	Non-Reimbursable	\$595,711 SSC	SSAA-1053-0172

ROW NO.	PAM ID NUMBER	PARTNER NAME	TITLE/PURPOSE	SIGNATURE DATE	EXPIRATION DATE	TYPE OF AGREEMENT	VALUE FOR CENTER	CENTER TRACKING NUMBER (IF ANY)
116	1 32181	INFINITY SCIENCE CENTER, INC	Annex One to Nonreimbursable Space Act Umbrella Agreement Between Infinity Science Center for Framework on a Regional Partnership	7/7/2020	7/7/2025	Non-Reimbursable	\$394,746 SSC	SSAA-1053-0171
1162	2 32180	Infinity Science Center, Inc.	Non-Reimbursable Space Act Umbrella Agreement Infinity Science Center, Inc. for Framework on a Regional Partnership	7/7/2020	7/7/2025	Non-Reimbursable	\$0 SSC	SSAA-1053-0170
1163	3 32137	Launcher Space	Annex One Propulsion Test Support to Launcher Space	3/31/2020	3/31/2022	Reimbursable	SSC	SSAA-1053-0175
1164	4 32136	Launcher Space	Propulsion Test Support to Launcher Space	3/31/2020	3/31/2025	Reimbursable	SSC	SSAA-1053-0174
116	5 31148	MISSISSIPPI STATE UNIVERSITY	Annex One for Use of Restricted Airspace at John C. Stennis	:1/14/2020	11/20/2022	Reimbursable	SSC	SSAA-1051-0082

ROW NO.	PAM ID NUMBER	PARTNER NAME	TITLE/PURPOSE	SIGNATURE DATE	EXPIRATION DATE	TYPE OF AGREEMENT	COMULATIVE DOLLAR CENTER	CENTER TRACKING NUMBER (IF ANY)
1	166 31147	MISSISSIPPI STATE UNIVERSITY	Umbrella Agreement for Restricted Airspace at John C. Sten	1/14/2020	1/14/2025	Reimbursable	SSC	SSAA-1051-0081
1	167 30466	RELATIVITY SPACE, INC	Host Tenant Agreement Between National Aeronautics and S	5/28/2019	5/28/2028	Reimbursable	SSC	SSAA-1053-0165
1	168 30052	Interstellar Technologies, LLC	Propulsion Engineering and Testing Support	5/6/2019	5/6/2024	Reimbursable	SSC	SSAA-1053-0162
1	169 29966	Relativity Space Incorporated	Reimbursable Space Act Agreement Relativity Space, Inc. fo	5/28/2019	5/28/2028	Reimbursable	SSC	SSAA-1053-0164
1	170 28381	State of Mississippi Technology Trai	n Use Permit Between National Aeronautics and Space Admin	6/12/2018	4/19/2023	Reimbursable	SSC	SSAA-1051-0079

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1171	28380	STATE OF MISSISSIPPI Technology	Host Tenant Agreement Between the National Aeronautics a	a 6/12/2018	4/19/2023	Reimbursable		SSC	SSAA-1051-0078
1172	28334	BLUE ORIGIN, LLC	Blue Origin Umbrella Rocket Propulsion Testing and Related	d 6/29/2018	6/29/2023	Reimbursable		SSC	SSAA-1053-0154
1173	27897	STRATOLAUNCH SYSTEMS CORF	Annex Two to Reimbursable Space Act Umbrella Agreemen	t 5/11/2018	5/11/2022	Reimbursable		SSC	SSAA-1053-0153
1174	27516	STATE OF MISSISSIPPI	Use of NASA facilities and services in support of the Mississ	ii 4/9/2018	4/19/2023	Reimbursable		SSC	SSAA-1051-0077
1175	27333	THE BOEING COMPANY	Reimbursable Space Act Umbrella Agreement Between the	13/21/2018	3/21/2023	Reimbursable		SSC	SSAA-1053-0149

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	1176 264	430	Hancock County Mississippi	For Hancock County EOC Continuity Site	3/19/2018	3/19/2023	Non-Reimbursable	\$0 SSC	SSAA-1051-0068
	1177 264	115	Infinity Science Center, Inc.	Land Use Permit Between National Aeronautics and Space A	9/10/2007	9/10/2037	Reimbursable	SSC	SSAA-1053-0035
	1178 262	275	STRATOLAUNCH SYSTEMS COR	P Reimbursable Space Act Umbrella Agreement Between The	9/13/2017	9/13/2022	Reimbursable	SSC	SSAA-1053-0139
	1179 257	760	The Board of Trustees of Mississipp	oi The Center of Higher Learning and Related University Activit	i11/29/2017	11/29/2022	Reimbursable	SSC	SSAA-1051-0066
	1180 252	252	Innovative Imaging and Research C	d Reimbursable Space Act Agreement Between National Aero	3/16/2017	3/6/2022	Reimbursable	SSC	SSAA-1053-0128

ROW NO.	PAM ID NUMBER	PARTNER NAME	TITLE/PURPOSE	SIGNATURE DATE	EXPIRATION DATE	TYPE OF AGREEMENT	COMULATIVE DOLLAR CENTER	CENTER TRACKING NUMBER (IF ANY)
1181	23222	Honeywell International Incorporation	Cross-Center Umbrella Agreement to Support NASA Science Technology Engineering and Mathematics (STEM) Education and Outreach	10/7/2016	10/7/2021	Non-Reimbursable	\$438,844 SSC	SSAA-1053-0114
1182	2 18253	Lockheed Martin Corporation	Domestic Reimbursable Space Act Agreement (With Amend	1/30/2001	1/30/2051	Reimbursable	SSC	SSC/PRI-01-002-06
1183	3 11567	Infinity Science Center, Inc.	Nonreimbursable Space Act Agreement Between for Opera	1/10/2012	1/10/2032	Non-Reimbursable	SSC	SSAA-1053-0044
1184	4864	MISSISSIPPI STATE UNIVERSITY	Reimbursable Space Act Agreement Between National Aero	1/22/2009	1/22/2024	Reimbursable	SSC	SSAA-1051-0034
1185	3110	Rolls-Royce North America, Inc.	Domestic Reimbursable Space Act Agreement Between NAS	6/13/2005	6/13/2025	Reimbursable	SSC	SSAA-1053-0015

ROW NO.	PAM ID NUMBER	PARTNER NAME	TITLE/PURPOSE	SIGNATURE DATE	EXPIRATION DATE	TYPE OF AGREEMENT	COMULATIVE DOLLAR CENTER	CENTER TRACKING NUMBER (IF ANY)
1186	3094	Aerojet Rocketdyne of DE, Inc.	Reimbursable Space Act Agreement RS-68 Engine Test Pro	5/18/1998	5/16/2023	Reimbursable	SSC	SSC/PRI-98-005-03
1187	2566	Aerojet Rocketdyne of DE, Inc.	Operation of E-6 Government-Owned Engine Test Facility in	6/29/2007	6/16/2022	Non-Reimbursable	SSC	SSAA-1053-0033
1188	3 35393	EMBRY RIDDLE AERONAUTICAL UNIVERSITY	Airglow Short-Wave Infrared (SWIR) Imager	10/18/2023	10/17/2025	Non-Reimbursable	\$26,000 WFF	GSFC-22-35393
1189	35336	ROCKET LAB USA	Annex 2 to Rocket Lab Autonomous Flight Termination Syste	:10/5/2021	10/4/2023	Reimbursable	WFF	GSFC-21-32608
1190	34693	Old Dominion University	Annex 2 for Educational Collaboration Relating to STEM Careers	10/26/2021	5/3/2026	Non-Reimbursable	\$8,211 WFF	LaRC SAA1-34376

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1191	34097	JOHNS HOPKINS UNIVERSITY / APPLIED PHYSICS LAB	Use of the Wallops Geophysical Observatory (WGO) for the Collection of Scientific Data from Super Dual Auroral Radar Network (SUPERDARN)		7/18/2026	Non-Reimbursable	\$25,441	WFF	GSFC-21-34097
1192	34092	THE REGENTS OF THE UNIVERSITY OF COLORADO	Use of the Wallops Geophysical Observatory (WGO) for the Collection of Scientific Data from the Ionospheric Radar	7/2/2021	7/1/2026	Non-Reimbursable	\$25,441	WFF	GSFC-21-34092
1193	33612	Enroute Computer Systems	Wet Runway Brake Testing	8/30/2021	8/29/2024	Reimbursable		WFF	GSFC-21-33611
1194	33611	Enroute Computer Systems	Airfield Testing and Support	8/30/2021	8/29/2026	Reimbursable		WFF	GSFC-21-33611
1195	33131	Salisbury University	Test Weather Station (MESONET) system for automated weather and environmental monitoring.	11/12/2020	11/11/2025	Non-Reimbursable	\$102,500	WFF	GSFC-20-33131

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1196	32609	ROCKET LAB USA	GSFC-21-32608 Rocket Lab Umbrella Agreement Annex 1 -	7/8/2021	7/7/2023	Reimbursable		WFF	GSFC-21-32608
1197	32608	ROCKET LAB USA	Rocket Lab Autonomous Flight Termination System Support	7/8/2021	7/7/2026	Reimbursable		WFF	GSFC-20-32608
1198		Blue Ridge Research and Consulting, LLC	Improving Rocket Launch Acoustic Models and Interpreting Raw Acoustical Data	5/1/2020	4/30/2025	Non-Reimbursable	\$27,290	WFF	GSFC-20-32318
1199	32248	Sagrad, Inc.	Range Certification Support of NASA Autonomous Flight Terminations Systems	4/29/2020	4/29/2022	Non-Reimbursable	\$1,700,000	WFF	GSFC-20-32248
1200	30338	GULFSTREAM AEROSPACE CORF	annex to Water Ingestion Testing	4/13/2020	4/13/2022	Reimbursable		WFF	GSFC-17-25048 Ann

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120′	28618	Vector Launch, Inc.	Flight Safety Analysis for Launch Vehicle	11/13/2018	11/13/2021	Reimbursable	WFF	GSFC-18-28618
1202	2 26250	Virginia Department of Health	Closed Points of Dispensing (POD) Provision of Emergency Medical Prophylaxis	7/20/2017	7/20/2022	Non-Reimbursable	\$2,000 WFF	
1203	3 25827	University of Massachusetts, Lowell	Further Development of Technology to Support the CubeSat Arcsecond Pointing System (CAPS)	10/26/2017	10/27/2022	Non-Reimbursable	\$15,000 WFF	GSFC-17-25827
1204	1 25541	V A COMMERCIAL SPACE FLIGHT	Γ Operations and Activities for the Unmanned Aerial System R	1/9/2018	1/9/2023	Reimbursable	WFF	GSFC-17-25541
1205	5 25526	VIRGINIA SPACE FLIGHT ACADEMY	Outreach Activities	6/7/2017	6/6/2022	Non-Reimbursable	\$8,138 WFF	GSFC-17-25526

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1206	3 25048	GULFSTREAM AEROSPACE COR	PWater Ingestion Testing	4/13/2017	4/13/2022	Reimbursable	WFF	GSFC-17-25048
1207	7 12103	CELLCO/Verizon	Enhanced Use Lease Agreement/Cellco-Verizon for Greenbe	9/21/2011	9/21/2026	Reimbursable	WFF	
1208	3 9404	Accomack County Department of Pu	ul Joint Emergency Planning, Response, and Management Act	i 10/20/2011	1/11/2022	Reimbursable	WFF	
1209	3646	Marine Science Consortium	Marine Science Consortium	2/13/2006	2/16/2022	Reimbursable	WFF	SAA-GSFC-06-3646
1210	3219	Chincoteague Bay Field Station	Wallops Research Park	5/6/2009	5/6/2069	Reimbursable	WFF	3219

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121	1 34863	Northrop Grumman	Hypervelocity Testing in Support of Northrup Grumman (NG)	8/30/2021	8/30/2022	Reimbursable	WSTF	SAA-RA-21-34863
121	2 34796	Virgin Orbit, LLC	Composite Over-wrapped Pressure Vessel Damage Detection	10/14/2021	10/14/2026	Reimbursable	WSTF	SAA-RA-21-34796
121	3 34328	ZIN TECHNOLOGIES, INC	NASA-STD-2007-213740 Oxygen Compatibility Assessment	5/6/2021	5/6/2026	Reimbursable	WSTF	SAA-RA-21-34327-01
121	4 34327	ZIN TECHNOLOGIES, INC	WSTF Testing, Analysis, and Technical Expertise (Materials	5/6/2021	5/6/2026	Reimbursable	WSTF	SAA-RA-21-34327
121	5 34318	AEROJET ROCKETDYNE, INC	Post Boost Propulsion System (PBPS) Static Hot-fire Testing	7/20/2021	7/20/2025	Reimbursable	WSTF	SAA-RA-21-34318

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1216	34307	ILC Dover LP	NASA-STD-2007-213740 Oxygen Compatibility Assessment	8/4/2021	8/4/2026	Reimbursable	WSTF	SAA-RA-21-34306-01
1217	34306	ILC Dover LP	WSTF Testing, Analysis, and Technical Expertise (Materials	8/4/2021	8/4/2026	Reimbursable	WSTF	SAA-RA-21-34306
1218	34081	THE BOEING COMPANY	Annex 3 to fabricate WSTF designed throat plugs for R40B t	10/26/2021	9/13/2023	Reimbursable	WSTF	SAA-RA-18-28204-03
1219	33315	Northrop Grumman	Exposure and Mechanical Properties Testing of FEP Propells	10/8/2021	10/8/2023	Reimbursable	WSTF	SAA-RA-21-33315
1220	32676	THE BOEING COMPANY	STP3 R40b Hot Fire Testing	4/29/2021	4/29/2022	Reimbursable	WSTF	SAA-RA-20-32676

ROW NO		M ID MBER	PARTNER NAME	TITLE/PURPOSE	SIGNATURE DATE	EXPIRATION DATE	TYPE OF AGREEMENT	VALUE FOR CENTER	CENTER TRACKING NUMBER (IF ANY)
	1221 325	596	WHA INTERNATIONAL, INC	Annex to Testing, Analysis Activities, and Exchange of Tech	11/2/2020	11/2/2021	Reimbursable	WSTF	SAA-RA-17-25227-04
	1222 322	278	THE BOEING COMPANY	Perform R40b thruster testing, provide test data results and	7/15/2020	7/15/2022	Reimbursable	WSTF	SAA-RA-18-28204-02
	1223 320	046	AEROJET ROCKETDYNE, INC	annex to Space Systems Technology Development and Dem	<sup>3</sup> /12/2020	3/12/2022	Reimbursable	WSTF	SAA8-1725910-06
,	1224 317	710	BLUE ORIGIN, LLC	NASA-STD-6001 Flammability, Offgassing, Compatibility Tes	7/22/2021	4/18/2022	Reimbursable	WSTF	SAA-RA-17-25434-03
	1225 315	581	Infinite Composites Technologies	Annex for COPV Inspection and Evaluation	5/5/2020	5/5/2025	Reimbursable	WSTF	SAA-RA-20-31363-02

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1	226 31520	Johnson and Johnson	Testing of N2O4 per MIL-PRF-26539G	2/26/2020	2/26/2023	Reimbursable	WSTF	SAA-RA-20-31520
1	227 31364	Infinite Composites Technologies	NASA-STD-2007-213740 Oxygen Compatibility Assessment	5/5/2020	5/5/2025	Reimbursable	WSTF	SAA-RA-20-31363-01
1	228 31363	Infinite Composites Technologies	WSTF Testing, Analysis, and Technical Expertise (Materials	5/5/2020	5/5/2025	Reimbursable	WSTF	SAA-RA-20-31363
1	229 31351	BLUE ORIGIN, LLC	Training Course: Hazardouts Propellants Compatibility Train	9/9/2021	4/18/2022	Reimbursable	WSTF	SAA-RA-17-25434-02
1	230 31188	Intuitive Machines, LLC	NASA Standards 6001B Testing	11/23/2020	11/23/2025	Reimbursable	WSTF	SAA-RA-20-31187-01

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1231	31187	Intuitive Machines, LLC	WSTF Testing, Analysis, and Technical Expertise (Materials,	11/23/2020	11/23/2025	Reimbursable	WSTF	SAA-RA-20-31187
1232	2 30649	B/E Aerospace, d.b.a.Collins Aeros	paNASA-STD-6001 Flammability, Offgassing, Compatibility Tes	3/31/2020	3/30/2025	Reimbursable	WSTF	SAA-RA-20-30648
1233	3 30648	B/E Aerospace, d.b.a. Collins Aeros	sp Collins Aerospace Oxygen and COPV Testing, Analysis and	3/31/2020	3/30/2025	Reimbursable	WSTF	SAA-RA-20-30648
1234	1 29610	AS and D, LLC	NASA's Composite Overwrapped Pressure Vessel (COPV) [	2/4/2019	2/4/2024	Reimbursable	WSTF	SAA-RA-19-29610
1235	5 28204	THE BOEING COMPANY	Perform R40b thruster testing and provide test data results.	9/13/2018	9/13/2023	Reimbursable	WSTF	SAA-RA-18-28204

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12	236 26448	WHA INTERNATIONAL, INC	Annex to Testing, Analysis Activities, and Exchange of Tech	r9/7/2017	3/21/2022	Reimbursable	WSTF	SAA-RA-17-25227-02
12	25435	Blue Origin, LLC	NASA-STD-6001 Flammability, Offgassing, Compatibility Te	4/18/2017	4/18/2022	Reimbursable	WSTF	SAA-RA-17-25434-01
12	238 25434	Blue Origin, LLC	TESTING, ANALYSIS ACTIVITIES, AND EXCHANGE OF T	l4/18/2017	4/18/2022	Reimbursable	WSTF	SAA-RA-17-25434
12	239 25228	WHA International, Inc.	NASA-STD-6001 Flammability, Offgassing, and Compatibility	3/21/2017	3/21/2022	Reimbursable	WSTF	SAA-RA-17-25227-01
12	240 25227	WHA International, Inc.	Testing, Analysis Activities, and Exchange of Technical Expe	3/21/2017	3/21/2022	Reimbursable	WSTF	SAA-RA-17-25227

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1241	22312	Honeywell	NASA-STD-6001 Flammability, Offgassing, and Compatibilit	y 10/11/2016	10/11/2021	Reimbursable		WSTF	SAA-RA-16-22311-01
1242	22311	Honeywell	Honeywell NASA-STD-6001B, Vacuum Stability Testing and	10/11/2016	10/11/2021	Reimbursable		WSTF	SAA-RA-16-22311
1243	22154	Celanese International Corporation	Celanese Chemical Division Process Enhancement Testing	11/7/2018	11/7/2021	Reimbursable		WSTF	SAA-RA-18-22154
1244	20648	Blue Origin, LLC	NONREIMBURSABLE SPACE ACT AGREEMENT BETWEEN BLUE ORIGIN, LLC AND NASA FOR THE LOAN OF NASA OWNED PRESSURE VESSELS	5/8/2017	5/8/2022	Non-Reimbursable	\$17,256	WSTF	SAA-RA-17-20648